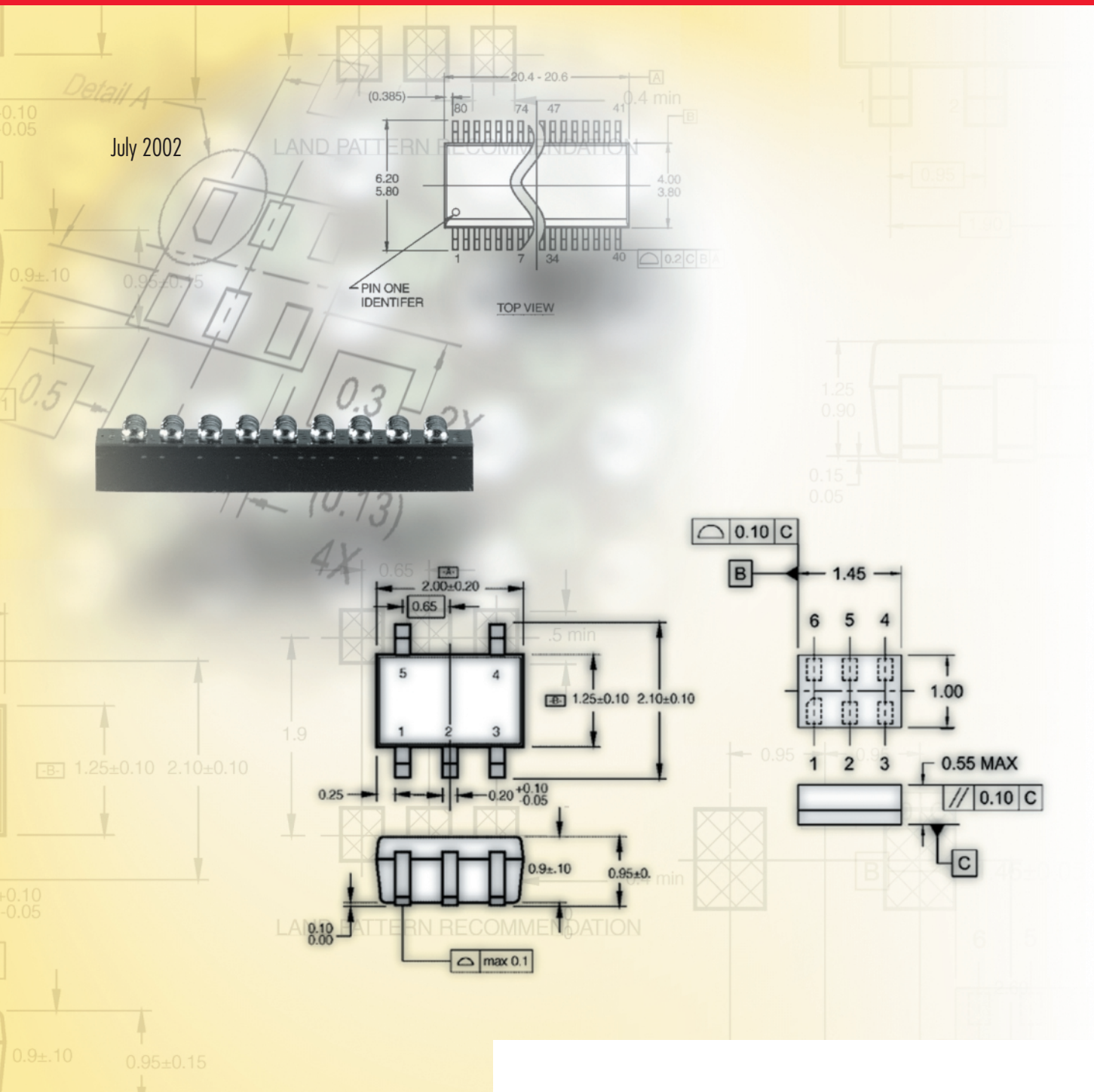


# Logic Product Catalog

Opoelectronics  
Interface & Logic  
Discrete  
Analog



Across the board. Around the world.

**FAIRCHILD**  
SEMICONDUCTOR®

## Literature

Description	Literature #
Advanced Logic Products Databook (CROSSVOLT™, Fairchild Switch, TinyLogic™, VHC)	400000-002
Interface Products Databook	502000-003
Logic Selection Guide	585146-003
Logic Industry Cross-Reference Guide	585362-002
CROSSVOLT™ Low Voltage Logic Competitive Cross-Reference Guide	585370-001
CROSSVOLT Low Voltage Logic Reference Guide	585371-001
CROSSVOLT Low Voltage Logic Selection Guide	585380-002
CROSSVOLT LVT Line Card	585372-001
CROSSVOLT VCX Line Card	585390-001
FACT™ CMOS & ABT BiCMOS Logic Databook	401000-001
Fairchild Switch Product Line Card	585401-002
GTLP Line Card	585430-003
TinyLogic Product Line Card	580192-001
TinyLogic CD-ROM	580195-002
VHC CMOS Family Brochure	585091-001
VHC Product Line Card	585092-002
VHC Information Package	585093-001
Fairchild CD-ROM	900000-003
BGA Packaging Card	503100-001
BGA Kit	502003-001
Interface & Logic Notebook Design Guide	580300-002
Fairchild Server Solutions	580400-001

Additional literature is available from Fairchild Semiconductor. Please contact your sales representative for further information.

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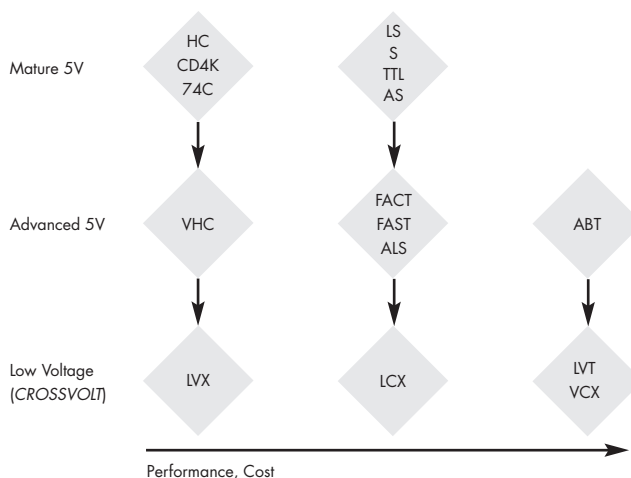
## Logic Products Overview

Fairchild is the #2 supplier of standard logic worldwide, offering a full range of logic products. Fairchild's logic portfolio consists of TinyLogic™ products, low voltage products, and standard logic products.

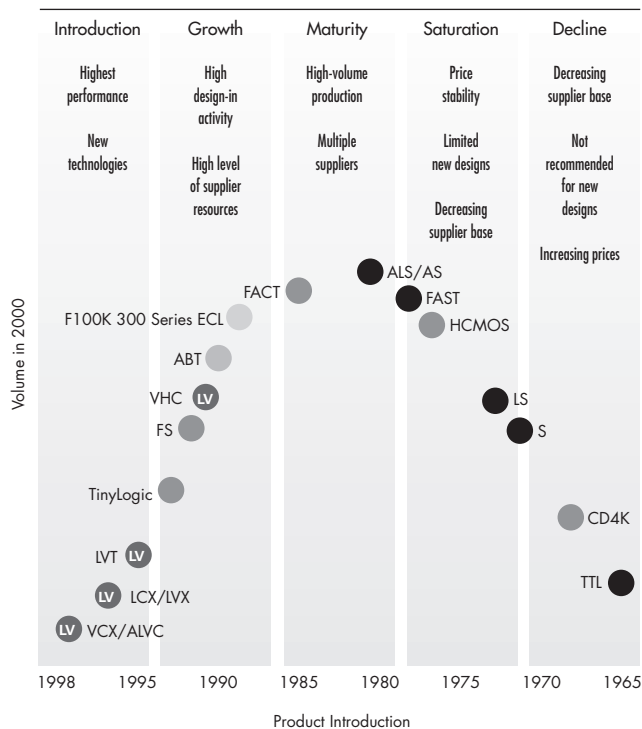
Fairchild's packaging solutions range from MicroPak™ packaging, which established a new standard for logic packaging, to high pin count QVSOP and BGA packaging. Fairchild's logic portfolio serves multiple markets including communications, industrial, computer and consumer applications.

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## Logic Migration and Low Voltage Transition



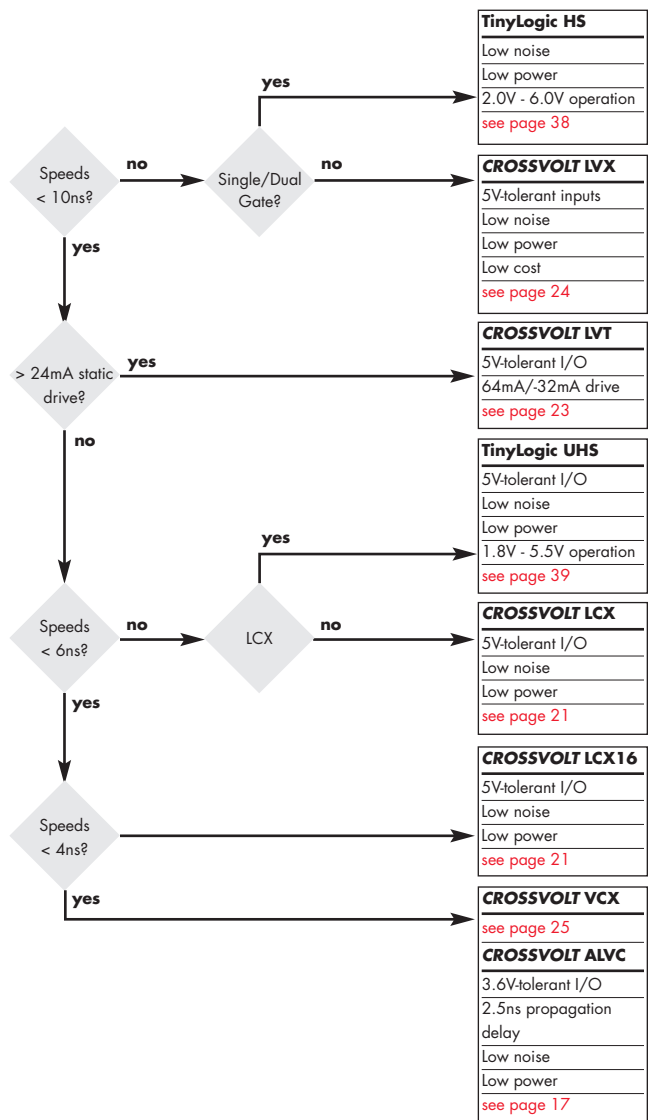
## Product Life Cycle Curve



### Process Key

BiCMOS	●
BiCMOS (Low Voltage)	LV ●
CMOS	●
CMOS (Low Voltage)	LV ●
Bipolar	●
ECL – 300 Series	●

## Low-Voltage Decision Tree



## Quick Reference Flow Chart

Process Technology	High Speed	Low Noise	Low Static Power	High Drive	Low Voltage	Board Space
BiCMOS 5V	ABT			ABT		
BiCMOS 3V	CROSSVOLT LVT			CROSSVOLT LVT	CROSSVOLT LVT	
CMOS 5V	TinyLogic UHS	TinyLogic HS/HST	TinyLogic HS/HST/UHS			TinyLogic HS
		FACT QS	FACT			TinyLogic HST
	FACT	HC/HCT	FACT QS			TinyLogic UHS
	FS	VHC/VHCT	HC/HCT			FS
		FS	VHC/VHCT			
CMOS 3V	CROSSVOLT VCX	CROSSVOLT LVX	CROSSVOLT LCX		CROSSVOLT LCX	TinyLogic HS
	CROSSVOLT LCX	TinyLogic HS	CROSSVOLT LVX		CROSSVOLT LVX	TinyLogic UHS
	CROSSVOLT ALVC	VCX	CROSSVOLT VCX		CROSSVOLT VCX	16 and 32 BGA
	TinyLogic UHS		CROSSVOLT ALVC		CROSSVOLT ALVC	ALVCH
	ALVCH		TinyLogic HS/UHS			
			ALVCH			
Bipolar	FASTr	ALS		FASTr		
		FAST				
ECL	F100K 300 Series ECL					

## Product Portfolio and Description

	Buffers/Line Drivers	Transceivers	Registers / Flip-Flops	Latches	Counters	Multiplexers	Comparators	Parity Generator / Checker	Decoders / Demultiplexers	FIFOs / Arithmetic Functions	Gates	Video Support	Voltage Translators	250 Series Resistor Options	Bus Switches	Boundary Scan (IEEE 1149.1)	16-, 18-, 32-Bit Functions	8-, 10-, 12-Bit Functions	1-, 2-, 3-Bit Functions	
<b>BiCMOS</b>																				
ABT	•	•	•	•				•						•		•	•	•		• High speed, high drive and low noise for superior system performance
LVT	•	•	•	•									•			•	•			• High-speed, high-drive logic for 3.3V applications
<b>CMOS</b>																				
<b>CROSSVOLT</b>																				
VCX	•	•	•	•							•	•				•	•			• High-speed CMOS enables interoperability between 3.3V and 2.5V systems, with 3.6V tolerant inputs and outputs
ALVC	•	•	•	•							•	•				•	•			• Advanced CMOS Low Voltage Logic family operating at 3.6V to 1.65V V <sub>CC</sub> operation. • Fully spec-for-spec compatible with other ALVCH logic suppliers
LCX	•	•	•	•		•		•	•		•	•				•	•			• 5V tolerant inputs and outputs • Ideal for 3.3V applications requiring balanced drive capability, high speed, and low noise
LVX	•	•	•	•	•	•		•	•		•	•		•			•			• 5V input tolerance allows 5V CMOS to interface with 3.3V systems. Includes specialized dual voltage translators and bus switch devices.
FACT	•	•	•	•	•	•	•	•	•	•	•						•			• General-purpose / broad-portfolio AC MOS family
AC/ACT																				
FACT Quiet Series	•	•	•	•				•			•					•	•	•		• Family extension specifically designed for noise-sensitive applications. Proprietary circuitry guarantees low EMI and low device-generated noise.
ACQ/ACTQ																				
Fairchild Switch FS						•					•	•	•	•		•	•	•		• High-speed, high-impedance, low-resistance undershoot protected switches
VHC/VHCT	•	•	•	•	•	•		•	•		•						•			• The natural migration for HCMOS users who need more speed for their low-power, low-noise, low-drive applications • Offered in fine-pitch packages
HC/HCT	•	•	•	•	•	•	•		•	•							•			• The lowest CMOS device-generated noise and EMI available in the moderate speed performance range • Not recommended for new designs
74C	•		•	•	•	•		•	•		•						•			• Applications-specific, high-voltage CMOS products for high-noise environments
CD4K	•		•	•	•	•		•	•		•						•			• Standard high-voltage CMOS products for high-noise environments
<b>TinyLogic</b>																				
HS											•							•		• General-purpose single-gate logic
HST											•							•		• TTL-compatible single-gate logic
UHS	•	•		•		•					•				•			•		• High-performance single- and dual-gate logic with 5V over-voltage tolerance on inputs and outputs
<b>Bipolar</b>																				
FASTr	•	•	•	•									•			•	•			• Fastest TTL logic available • A speed-improved, design-enhanced version of FAST
FAST	•	•	•	•	•	•	•	•	•	•	•		•				•			• The best speed to power portfolio of Advanced Schottky TTL families
AS	•	•	•	•	•	•		•	•	•	•						•			• A high-speed, high-drive TTL family • Not recommended for new designs
ALS	•	•	•	•	•	•	•		•	•	•						•			• Low output noise and the lowest power consumption of any advanced TTL logic family
LS / S / TTL	•	•	•	•	•	•		•	•	•	•						•			• Well-known, mature logic families for which Fairchild provides long-term support • Not recommended for new designs
<b>ECL</b>																				
300 Series	•	•	•	•	•	•		•	•		•	•					•			• Easiest to use ECL with the lowest power and best price / performance of any ECL family • Socket replacement of F100K 100 Series

## Fairchild's Logic Functional Cross-Reference Guide

	Bipolar								BiCMOS	CMOS																				
	FAST	FASTr	Bipolar	ALS	AS	S	LS	ECL	ABT	Low Voltage						FACT		VHC		HCMOS				TinyLogic						
Function	FAST	FASTr	Bipolar	ALS	AS	S	LS	ECL	ABT	ALVC	LCX	LVX	LVT	LVQ	VCX	AC	ACT	VHC	VHCT	C	HC	HCT	CD4K	HS	HST	UHS	FS			
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	Bipolar								BiCMOS	CMOS																			
	FAST	FASTr	Bipolar	ALS	AS	S	LS	ECL	ABT	Low Voltage						FACT		VHC		HCMOS				TinyLogic					
Function	FAST	FASTr	Bipolar	ALS	AS	S	LS	ECL	ABT	ALVC	LCX	LVX	LVT	LVQ	VCX	AC	ACT	VHC	VHCT	C	HC	HCT	CD4K	H5	H5T	UHS	FS		
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## Cross-Reference Guide

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	FAST	FASTr	Bipolar	ALS	AS	S	LS	ECL	ABT	Low Voltage						FACT		VHC		HCMOS				TinyLogic					
Function	FAST	FASTr	Bipolar	ALS	AS	S	LS	ECL	ABT	ALVC	LCX	LVX	LVT	LVQ	VCX	AC	ACT	VHC	VHCT	C	HC	HCT	CD4K	HS	HST	UHS	FS		
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	Bipolar								BiCMOS	CMOS										TinyLogic								
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779	•																											
794	•																											
804				•	•																							
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821	•										•						•	•										
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## Cross-Reference Guide

Function	Bipolar								BiCMOS	CMOS														TinyLogic			
	FAST	FASTr	Bipolar	ALS	AS	S	LS	ECL		Low Voltage						FACT		VHC		HCMOS				TinyLogic			
Function	FAST	FASTr	Bipolar	ALS	AS	S	LS	ECL	ABT	ALVC	LCX	LVX	LVT	LVQ	VCX	AC	ACT	VHC	VHCT	C	HC	HCT	CD4K	HS	HST	UHS	FS
914																				•							
922																				•							
923																				•							
925																				•							
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1004				•	•																						
1005				•																							
1008				•																							
1032				•	•																						
1034				•	•																						
1035				•																							
1056	•																										
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1074		•																									
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1645	•																										
1804					•																						
1805					•																						
2240	•	•							•				•														
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2244	•	•							•		•		•														
2245		•								•	•		•		•												
2541									•																		
2708																	•										
2952									•																		
3125																									•	•	
3126																									•	•	
3157																									•	•	
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3257																									•	•	
3306																									•	•	
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4053																		•			•		•				
4060																					•		•				

	Bipolar								BiCMOS	CMOS																				
	FAST	FASTr	Bipolar	ALS	AS	S	LS	ECL	ABT	Low Voltage						FACT		VHC		HCMOS				TinyLogic						
Function	FAST	FASTr	Bipolar	ALS	AS	S	LS	ECL	ABT	ALVC	LCX	LVX	LVT	LVQ	VCX	AC	ACT	VHC	VHCT	C	HC	HCT	CD4K	HS	HST	UHS	FS			
4066																		•			•		•							
4069																							•							
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4594																										•				
4724																							•							
5245				•																										
6800																												•		
7438			•																											
9240		•																												
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16240										•	•		•		•		•													
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16245		•							•	•	•		•		•		•											•		
16292																												•		
16373									•	•	•		•		•		•													
16374									•	•	•		•		•		•													
16450																												•		
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16501									•	•	•		•		•															
16540		•																•												
16541		•							•									•												
16543									•		•		•					•												
16601										•					•															
16646									•		•		•					•												
16652									•		•		•																	
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16838										•					•															
16839										•					•															
16841										•	•				•															
16861																												•		
16862																												•		
16952									•				•																	
18245																														
18254																														

## Cross-Reference Guide

	Bipolar								BiCMOS	CMOS																			
	FAST	FASTr	Bipolar	ALS	AS	S	LS	ECL	ABT	Low Voltage						FACT		VHC		HCMOS				TinyLogic					
Function	FAST	FASTr	Bipolar	ALS	AS	S	LS	ECL	ABT	ALVC	LCX	LVX	LVT	LVQ	VCX	AC	ACT	VHC	VHCT	C	HC	HCT	CD4K	HS	HST	UHS	FS		
18373																													
18374																													
18540																													
18541																													
18823																	•												
18825																	•												
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32160																											•		
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32652											•																		
32952													•																
34170																											•		
40106																							•						
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161284												•						•											
162211																											•		
162240										•	•		•		•														
162244									•	•	•		•		•												•		
162245										•	•		•		•												•		
162373										•	•		•		•														
162374										•	•		•		•														
162450																											•		
162601										•					•														
162827										•					•														
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182245																													
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34X245																											•		
34X2245																											•		

## Alpha-Numeric Product Listing

## F100K 300 Series Logic

Fairchild's 300 Series ECL is the easiest-to-use ECL logic family available. The fast gate speeds, full voltage and temperature compensation, and the ability to drive low impedance transmission lines make 300 Series the logic of choice for ECL-based systems as well as those that mix ECL with TTL and/or CMOS.

Function	Description	Lead	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	CDIP	DIP	PLCC	PLCC T&R	PLCC Industrial Temp	PLCC Industrial Temp T&R
100201	2-Input OR/NOR Gate/Inverter	8	SC	SCX								
100301	Triple 5-Input OR/NOR Gate	24/28			SC	SCX	DC	PC	QC	QCX	QI	QIX
100302	Quint 2-Input OR/NOR Gate	24/28					DC	PC	QC	QCX	QI	QIX
100304	Quint AND/NAND Gate	24/28					DC	PC	QC	QCX	QI	QIX
100307	Quint Exclusive OR/NOR Gate	24/28					DC	PC	QC	QCX	QI	QIX
100310	Low Skew 2:8 Differential Clock Driver	28							QC	QCX	QI	QIX
100311	Low Skew 1:9 Differential Clock Driver	28							QC	QCX	QI	QIX
100313	Quad Driver	24/28			SC	SCX	DC	PC	QC	QCX	QI	QIX
100314	Quint Differential Line Receiver	24/28			SC	SCX	DC	PC	QC	QCX	QI	QIX
100315	Low-Skew Quad Clock Driver	16	SC	SCX								
100316	Quad Differential Line Driver w/Cut-Off	28							QC	QCX	QI	QIX
100319	Hex Line Driver w/Cut-Off	28							QC	QCX	QI	QIX
100321	9-Bit Inverter	24/28						PC	QC	QCX	QI	QIX
100322	9-Bit Buffer	24/28						PC	QC	QCX	QI	QIX
100323	Hex Bus Driver	24/28						PC	QC	QCX	QI	QIX
100324	Hex TTL-to-ECL Translator	24/28			SC	SCX	DC	PC	QC	QCX	QI	QIX
100325	Hex TTL-to-ECL Translator	24/28			SC	SCX	DC	PC	QC	QCX	QI	QIX
100328	Hex TTL-to-ECL Translator	24/28			SC	SCX	DC	PC	QC	QCX	QI	QIX
100329	Hex TTL-to-ECL Translator	24/28					DC	PC	QC	QCX	QI	QIX
100329A	Hex TTL-to-ECL Translator	24					DC	PC				
100331	Triple D-Type Flip-Flop	24/28			SC	SCX	DC	PC	QC	QCX	QI	QIX
100336	4-Stage Counter/Shift Register	24/28			SC	SCX	DC	PC	QC	QCX	QI	QIX
100341	8-Bit Shift Register	24/28			SC	SCX	DC	PC	QC	QCX	QI	QIX
100343	8-Bit Latch	24/28						PC	QC	QCX	QI	QIX
100344	8-Bit Latch w/Cut-Off Drivers	24/28						PC	QC	QCX	QI	QIX
100350	Hex D-Type Latch	24/28					DC	PC	QC	QCX	QI	QIX
100351	Hex D-Type Flip-Flop	24/28			SC	SCX	DC	PC	QC	QCX	QI	QIX
100352	8-Bit Buffer w/Cut-Off Drivers	24/28						PC	QC	QCX	QI	QIX
100353	8-Bit Register	24/28						PC	QC	QCX	QI	QIX
100354	8-Bit Register w/Cut-Off Drivers	24/28						PC	QC	QCX	QI	QIX
100355	Quad Multiplexer/Latch	24/28					DC	PC	QC	QCX	QI	QIX
100360	Dual Parity Checker/Generator	24/28					DC	PC	QC	QCX	QI	QIX
100363	Dual 8-Input Multiplexer	24/28					DC	PC	QC	QCX	QI	QIX
100364	16-Input Multiplexer	24/28						PC	QC	QCX	QI	QIX
100370	Universal Demultiplexer/Decoder	24/28						PC	QC	QCX	QI	QIX
100371	Triple 4-Input Multiplexer w/Enable	24/28			SC	SCX	DC	PC	QC	QCX	QI	QIX
100390	Hex TTL-to-ECL Translator	24/28			SC	SCX		PC	QC	QCX	QI	QIX
100391	Hex TTL-to-ECL Translator	24/28			SC	SCX		PC	QC	QCX	QI	QIX
100393	Hex TTL-to-ECL Translator	28							QC	QCX	QI	QIX
100395	Hex TTL-to-ECL Translator	28							QC	QCX	QI	QIX
100397	Quad Differential ECL/TTL Translating Transceiver w/Latch	24/28						PC	QC	QCX	QI	QIX
100398	Quad Differential ECL/TTL Translating Transceiver w/Latch	24/28						PC	QC	QCX	QI	QIX

## Alpha-Numeric Product Listing

### 74ABTxx-ABT BiCMOS Logic

ABT products are ideally suited for high-end TTL backplane design as well as any application that requires high speed, low noise, high output drive, and low power dissipation. ABT logic also offers live insertion capability — important to communication and industrial applications.

Function	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T&R	PLCC	PLCC T&R
74ABT125C	Quad Buffer w/3-STATE Outputs	14		SJ	SJX	SC	SCX			MTC	MTCX				
74ABT126C	Quad Buffer w/3-STATE Outputs	14		SJ	SJX	SC	SCX			MTC	MTCX				
74ABT240C	Octal Buffer/Line Driver w/3-STATE Outputs	20		SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT241C	Octal Buffer/Line Driver w/3-STATE Outputs	20		SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT244C	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT245C	Octal Bi-Directional Transceiver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT273C	Octal D-Type Flip-Flop	20		SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT373C	Octal Transparent Latch w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT374C	Octal D-Type Flip-Flop w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT377C	Octal D-Type Flip-Flop w/Clock Enable	20		SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT541C	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT543C	Octal Registered Transceiver w/3-STATE Outputs	24						SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT573C	Octal D-Type Latch w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT574C	Octal D-Type Flip-Flop w/3-STATE Outputs	20		SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT646C	Octal Transceivers and Registers w/3-STATE Outputs	24						SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT652C	Octal Transceivers and Registers w/3-STATE Outputs	24						SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT899C	9-Bit Latchable Transceiver w/Parity Generator/ Checker	28						SC	SCX			MSA	MSAX	QC	QCX
74ABT2240C	Octal Buffer/Line Driver w/25 Ohm Series Resistors in the Outputs	20		SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT2244C	Octal Buffer/Line Driver w/25 Ohm Series Resistors in the Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT2541C	Octal Buffer/Line Driver w/25 Ohm Series Resistors in the Outputs	20		SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT2952C	Octal Registered Transceiver	24						SC	SCX	MTC	MTCX	MSA	MSAX		
74ABT16244C	16-Bit Buffer/Line Driver w/3-STATE Outputs	48								MTD	MTDX	SSC	SSCX		
74ABT16245C	16-Bit Transceiver w/3-STATE Outputs	48								MTD	MTDX	SSC	SSCX		
74ABT16373C	16-Bit Transparent Latch w/3-STATE Outputs	48								MTD	MTDX	SSC	SSCX		
74ABT16374C	16-Bit D Flip-Flop w/3-STATE Outputs	48								MTD	MTDX	SSC	SSCX		
74ABT16500C	18-Bit Registered Bus Transceiver w/3-STATE Outputs	56								MTD	MTDX	SSC	SSCX		
74ABT16501C	18-Bit Universal Bus Transceivers w/3-STATE Outputs	56								MTD	MTDX	SSC	SSCX		
74ABT16541C	16-Bit Buffer/Line Driver w/3-STATE Outputs	48								MTD	MTDX	SSC	SSCX		
74ABT16543C	16-Bit Registered Transceiver w/3-STATE Outputs	56								MTD	MTDX	SSC	SSCX		
74ABT16646C	16-Bit Transceivers and Registers w/3-STATE Outputs	56								MTD	MTDX	SSC	SSCX		
74ABT16652C	Octal Transceivers and Registers w/3-STATE Outputs	56								MTD	MTDX	SSC	SSCX		
74ABT16952C	16-Bit Registered Transceiver w/3-STATE Outputs	56								MTD	MTDX	SSC	SSCX		
74ABT162244	16-Bit Buffer/Line Driver w/25 Ohm Series Resistors in the Outputs	48								CMTD	MTDX	CSSC	CSSX		

## 74ACxx-FACT™ (AC) CMOS Logic

FACT (Fairchild Advanced CMOS Technology) logic attains superior speeds while retaining the ultra-low power consumption of CMOS. It offers the system designer superior line driving characteristics as well as excellent ESD and latchup immunity. The FACT AC series offers standard logic functions with CMOS-compatible inputs and TTL- and MOS-compatible outputs.

Function	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T&R
74AC00	Quad 2-Input NAND Gate	14	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC02	Quad 2-Input NOR Gate	14	PC							MTC	MTCX		
74AC04	Hex Inverter	14	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC05	Hex Inverter w/Open-Drain Outputs	14				SC	SCX						
74AC08	Quad 2-Input AND Gate	14	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC10	Triple 3-Input NAND Gate	14	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC11	Triple 3-Input AND Gate	14	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC14	Hex Inverter Schmitt Trigger Input	14	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC20	Dual 4-Input NAND Gate	14	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC32	Quad 2-Input OR Gate	14	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC74	Dual D-Type Positive Edge-Triggered Flip-Flop	14	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC86	Quad 2-input Exclusive-OR Gate	14	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC109	Dual JK Positive Edge-Triggered Flip-Flop	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC125	Quad Buffer w/3-STATE Outputs	14	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC138	1-of-8 Decoder/Demultiplexer	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC139	Dual 1-of-4 Decoder/Demultiplexer	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC151	8-Input Multiplexer	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC153	Dual 4-Input Multiplexer	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC157	Quad 2-Input Multiplexer	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC161	Synchronous Presettable Binary Counter	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC163	Synchronous Presettable Binary Counter	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC169	4-Stage Synchronous Bidirectional Counter	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC174	Hex D Flip-Flop w/Master Reset	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC175	Quad D-Type Flip-Flop	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC191	Up/Down Counter w/Preset and Ripple Clock	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC240	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC241	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC244	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC245	Octal Bidirectional Transceiver w/3-STATE Inputs/ Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC251	8-Input Multiplexer w/3-STATE Output	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC253	Dual 4-Input Multiplexer w/3-STATE Outputs	16	PC	SJ	SJX	SC	SCX						
74AC257	Quad 2-Input Multiplexer w/3-STATE Outputs	16	PC	SJ	SJX	SC	SCX			MTC	MTCX		
74AC273	Octal D-Type Flip-Flop	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC280	9-Bit Parity Generator/Checker	14		SJ	SJX	SC	SCX						
74AC299	8-Input Universal Shift/Storage Register w/Common I/O Pins	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC373	Octal Transparent Latch w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC374	Octal D Flip-Flop w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC377	Octal D-Type Flip-Flop w/Clock Enable	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC399	Quad 2-Port Register	16	PC			SC	SCX						
74AC520	8-Bit Identity Comparator	20	PC					SC	SCX				
74AC521	8-Bit Identity Comparator	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC540	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC541	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC573	Octal Latch w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC574	Octal D-Type Flip-Flop w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX		
74AC646	Octal Bus Transceiver/Register w/3-STATE Outputs	24	SPC					SC	SCX				
74AC648	Octal Bus Transceiver/Register w/3-STATE Outputs	24	SPC					SC	SCX				
74AC821	10-Bit D-Type Flip-Flop w/3-STATE Outputs	24	SPC					SC	SCX				
74AC16244	16-Bit Buffer/Line Driver w/3-STATE Outputs	48										SSC	SSCX

## Alpha-Numeric Product Listing

### 74ACQxx-FACT Quiet Series™ (ACQ) CMOS Logic

FACT Quiet Series (FACT QS™) uses proprietary Quiet Series technology to control output overshoot, undershoot, and EMI. It offers the lowest noise characteristics of any advanced CMOS process while providing speed that is faster than FACT. The FACT Quiet Series' ACQ products offer CMOS-compatible inputs and TTL- and MOS-compatible outputs.

Function	Description	Lead	DIP	SOP	SOP T&R	SOIC-Wide	SOIC-Wide T&R	TSSOP	TSSOP T&R
74ACQ240	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX	SC	SCX		
74ACQ241	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC			SC	SCX		
74ACQ244	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX	SC	SCX		
74ACQ245	Octal Bidirectional Transceiver w/3-STATE Outputs	20	PC	SJ	SJX	SC	SCX		
74ACQ373	Octal Transparent Latch w/3-STATE Outputs	20	PC	SJ	SJX	SC	SCX		
74ACQ374	Octal D Flip-Flop w/3-STATE Outputs	20	PC	SJ	SJX	SC	SCX		
74ACQ543	Octal Registered Transceiver w/3-STATE Outputs	24	SPC			SC	SCX		
74ACQ544	Octal Registered Transceiver w/3-STATE Outputs	24	SPC			SC	SCX		
74ACQ573	Octal Latch w/3-STATE Outputs	20	PC	SJ	SJX	SC	SCX	MTC	MTCX
74ACQ574	Octal D Flip-Flop w/3-STATE Outputs	20	PC	SJ		SC	SCX		
74ACQ646	Octal Transceiver/Register w/3-STATE Outputs	24	SPC			SC	SCX		
74ACQ657	Octal Bidirectional Transceiver w/8-Bit Parity Generator/Checker and 3-STATE Outputs	24	SPC						

### 74ACTxx – FACT™ (ACT) CMOS Logic

FACT (Fairchild Advanced CMOS Technology) logic attains superior speeds while retaining the ultra-low power consumption of CMOS. It offers the system designer superior line driving characteristics as well as excellent ESD and latchup immunity. The FACT ACT series offers standard logic functions with TTL-compatible inputs and TTL- and MOS-compatible outputs.

Function	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC-Wide	SOIC-Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T &R	PLCC	PLCC T&R
74ACT00	Quad 2-Input NAND Gate	14	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACT02	Quad 2-Input NOR Gate	14	PC							MTC	MTCX				
74ACT04	Hex Inverter	14	PC			SC	SCX			MTC	MTCX				
74ACT08	Quad 2-Input AND Gate	14	PC			SC	SCX			MTC	MTCX				
74ACT10	Triple 3-Input NAND Gate	14	PC			SC	SCX			MTC	MTCX				
74ACT14	Hex Inverter Schmitt Trigger Input	14	PC			SC	SCX			MTC	MTCX				
74ACT32	Quad 2-Input OR Gate	14	PC			SC	SCX			MTC	MTCX				
74ACT74	Dual D-Type Positive Edge-Triggered Flip-Flop	14	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACT109	Dual JK Positive Edge-Triggered Flip-Flop	16	PC			SC	SCX			MTC	MTCX				
74ACT125	Quad Buffer w/3-STATE Outputs	14	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACT138	1-of-8 Decoder/Demultiplexer	16	PC	SJ	SJX	SC	SCX								
74ACT139	Dual 1-of-4 Decoder/Demultiplexer	16	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACT151	8-Input Multiplexer	16	PC	SJ		SC	SCX			MTC	MTCX				
74ACT153	Dual 4-Input Multiplexer	16				SC	SCX			MTC	MTCX				
74ACT157	Quad 2-Input Multiplexer	16	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACT158	Quad 2-Input Multiplexer	16	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACT161	Synchronous Presettable Binary Counter	16	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACT163	Synchronous Presettable Binary Counter	16	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACT174	Hex D Flip-Flop w/Master Reset	16	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACT175	Quad D-Type Flip-Flop	16	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACT240	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX				
74ACT241	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX				
74ACT244	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ACT245	Octal Bidirectional Transceiver w/3-STATE Inputs/ Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ACT251	8-Input Multiplexer w/3-STATE Output	16	PC			SC	SCX			MTC	MTCX				
74ACT253	Dual 4-Input Multiplexer w/3-STATE Outputs	16	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACT257	Quad 2-Input Multiplexer w/3-STATE Outputs	16	PC	SJ	SJX	SC	SCX			MTC	MTCX				



## 74ACTxx – FACT™ (ACT) CMOS Logic (cont.)

Function	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T &R	PLCC	PLCC T&R
74ACT258	Quad 2-Input Multiplexer w/3-STATE Outputs	16	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACT273	Octal D-Type Flip-Flop	20	PC	SJ	SJX			SC	SCX	MTC	MTCX				
74ACT299	8-Input Universal Shift/Storage Register w/Common I/O Pins	20	PC					SC	SCX	MTC	MTCX				
74ACT323	8-Bit Universal Shift/Storage Register w/Synchronous Reset and Common I/O Pins	20	PC												
74ACT373	Octal Transparent Latch w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ACT374	Octal D Flip-Flop w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX	MSA	MSAX		
74ACT377	Octal D-Type Flip-Flop w/Clock Enable	20	PC	SJ	SJX			SC	SCX	MTC	MTCX				
74ACT399	Quad 2-Port Register	16	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACT520	8-Bit Identity Comparator	20	PC	SJ	SJX			SC	SCX						
74ACT521	8-Bit Identity Comparator	20	PC	SJ	SJX			SC	SCX	MTC	MTCX				
74ACT533	Octal Transparent Latch w/3-STATE Outputs	20	PC					SC	SCX	MTC	MTCX				
74ACT534	Octal D Flip-Flop w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX						
74ACT541	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC					SC	SCX	MTC	MTCX				
74ACT563	Octal Latch w/3-STATE Outputs	20	PC					SC	SCX						
74ACT573	Octal Latch w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX				
74ACT574	Octal D-Type Flip-Flop w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX				
74ACT646	Octal Bus Transceiver/Register w/3-STATE Outputs	24	SPC					SC	SCX						
74ACT652	Transceiver/Register	24	SPC					SC	SCX	MTC	MTCX				
74ACT715	Programmable Video Sync Generator	20	PC					SC	SCX						
74ACT715-R	Programmable Video Sync Generator	20	C					C	CX						
74ACT818	8-Bit Diagnostic Register	24	SPC												
74ACT821	10-Bit D-Type Flip-Flop w/3-STATE Outputs	24	SPC					SC	SCX	MTC	MTCX				
74ACT823	9-Bit D-Type Flip-Flop	24	SPC					SC	SCX	MTC	MTCX				
74ACT825	8-Bit D-Type Flip-Flop	24	SPC					SC	SCX	MTC	MTCX				
74ACT841	10-Bit Transparent Latch w/3-STATE Outputs	24	SPC					SC	SCX	MTC	MTCX				
74ACT843	9-Bit Transparent Latch	24	SPC					SC	SCX						
74ACT899	9-Bit Latchable Transceiver w/Parity Generator/Checker	28												QC	QCX
74ACT1284	IEEE1284 Transceiver	20						SC	SCX	MTC	MTCX	MSA	MSAX		
74ACT2708	64 x 9 First-In First-Out Memory	28	PC												
74ACT16240	16-Bit Inverting Buffer/Line Driver w/3-STATE Outputs	48								MTD	MTDX	SSC	SSCX		
74ACT16244	16-Bit Buffer/Line Driver w/3-STATE Outputs	48								MTD	MTDX	SSC	SSCX		
74ACT16245	16-Bit Transceiver w/3-STATE Outputs	48								MTD	MTDX	SSC	SSCX		
74ACT16373	16-Bit Transparent Latch w/3-STATE Outputs	48								MTD	MTDX	SSC	SSCX		
74ACT16374	16-Bit D-Type Flip-Flop w/3-STATE Outputs	48								MTD	MTDX	SSC	SSCX		
74ACT16540	16-Bit Inverting Buffer/Line Driver w/3-STATE Outputs	48								MTD	MTDX	SSC	SSCX		
74ACT16541	16-Bit Buffer/Line Driver w/3-STATE Outputs	48								MTD	MTDX	SSC	SSCX		
74ACT16543	16-Bit Registered Transceiver w/3-STATE Outputs	56								MTD	MTDX	SSC	SSCX		
74ACT16646	16-Bit Transceiver/Register w/3-STATE Outputs	56								MTD	MTDX	SSC	SSCX		
74ACT18823	18-Bit D-Type Flip-Flop w/3-STATE Outputs	56								MTD	MTDX	SSC	SSCX		
74ACT18825	18-Bit Buffer/Line Driver w/3-STATE Outputs	56								MTD	MTDX	SSC	SSCX		

## Alpha-Numeric Product Listing

### 74ACTQxx – FACT Quiet Series™ (ACTQ) CMOS Logic

FACT Quiet Series (FACT QS) uses proprietary Quiet Series technology to control output overshoot, undershoot, and EMI. It offers the lowest noise characteristics of any advanced CMOS process while providing speed that is faster than FACT. The FACT Quiet Series' ACTQ products offer TTL-compatible inputs and TTL- and MOS-compatible outputs.

Function	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	QSOP	QSOP T&R	SSOP	SSOP T&R
74ACTQ00	Quad 2-Input NAND Gate	14	PC			SC	SCX			MTC	MTCX				
74ACTQ02	Quad 2-Input NOR Gate	14	PC							MTC	MTCX				
74ACTQ04	Hex Inverter	14	PC	SJ	SJX	SC	SCX			MTC	MTCX				
74ACTQ08	Quad 2-Input AND Gate	14	PC	SJ	SJX	SC	SCX								
74ACTQ10	Triple 3-Input NAND Gate	14	PC			SC	SCX			MTC	MTCX				
74ACTQ14	Hex Inverter Schmitt Trigger Input	14	PC			SC	SCX			MTC	MTCX				
74ACTQ32	Quad 2-Input OR Gate	14	PC	SJ	SJX	SC	SCX								
74ACTQ74	Dual D-Type Positive Edge-Triggered Flip-Flop	14	PC	SJ	SJX	SC	SCX								
74ACTQ153	Dual 4-Input Multiplexer	16	PC			SC	SCX								
74ACTQ240	Octal Buffer/Line Driver 3-STATE Outputs	20	PC	SJ	SJX			SC	SCX			QSC	QSCX		
74ACTQ244	Octal Buffer/Line Driver 3-STATE Outputs	20	PC	SJ	SJX			SC	SCX			QSC	QSCX	MSA	MSAX
74ACTQ245	Octal Bidirectional Transceiver 3-STATE Outputs	20	PC	SJ	SJX			SC	SCX	MTC	MTCX	QSC	QSCX	MSA	MSAX
74ACTQ273	Octal D Flip-Flop	20	PC	SJ	SJX			SC	SCX	MTC	MTCX				
74ACTQ373	Octal Transparent Latch 3-STATE Outputs	20	PC	SJ	SJX			SC	SCX			QSC	QSCX		
74ACTQ374	Octal D Flip-Flop 3-STATE Outputs	20	PC	SJ	SJX			SC	SCX			QSC	QSCX		
74ACTQ533	Octal Transparent Latch 3-STATE Outputs	20	PC					SC	SCX	MTC	MTCX				
74ACTQ541	Octal Buffer/Line Driver 3-STATE Outputs	20	PC					SC	SCX	MTC	MTCX				
74ACTQ543	Octal Registered Transceiver 3-STATE Outputs	24	SPC					SC	SCX			QSC	QSCX		
74ACTQ544	Octal Registered Transceiver 3-STATE Outputs	24	SPC					SC	SCX						
74ACTQ563	Octal Latch 3-STATE Outputs	20	PC												
74ACTQ573	Octal Latch 3-STATE Outputs	20	PC	SJ				SC	SCX	MTC	MTCX	QSC	QSCX		
74ACTQ574	Octal D Flip-Flop 3-STATE Outputs	20	PC	SJ				SC	SCX						
74ACTQ646	Octal Transceiver/Register 3-STATE Outputs	24	SPC					SC	SCX						
74ACTQ652	Transceiver/Register	24	SPC					SC	SCX	MTC	MTCX				
74ACTQ657	Octal Bidirectional Transceiver 8-Bit Parity Generator/ Checker and 3-STATE Outputs	24	SPC					SC	SCX						
74ACTQ821	10-Bit D-Type Flip-Flop 3-STATE Outputs	24	SPC					SC	SCX						
74ACTQ823	9-Bit D-Type Flip-Flop 3-STATE Outputs	24	SPC					SC	SCX						
74ACTQ827	10-Bit Buffer/Line Driver 3-STATE Outputs	24	SPC					SC	SCX						
74ACTQ841	10-Bit Transparent Latch 3-STATE Outputs	24	SPC					SC	SCX						
74ACTQ843	9-Bit Transparent Latch 3-STATE Outputs	24	SPC					SC	SCX						
74ACTQ16240	16-Bit Inverting Buffer/Line Driver 3-STATE Outputs	48								MTD	MTDX			SSC	SSCX
74ACTQ16244	16-Bit Buffer/Line Driver 3-STATE Outputs	48								MTD	MTDX			SSC	SSCX
74ACTQ16245	16-Bit Transceiver 3-STATE Outputs	48								MTD	MTDX			SSC	SSCX
74ACTQ16373	16-Bit Transparent Latch 3-STATE Outputs	48								MTD	MTDX			SSC	SSCX
74ACTQ16374	16-Bit D-Type Flip-Flop 3-STATE Outputs	48								MTD	MTDX			SSC	SSCX
74ACTQ16540	16-Bit Inverting Buffer/Line Driver 3-STATE Outputs	48								MTD	MTDX			SSC	SSCX
74ACTQ16541	16-Bit Buffer/Line Driver 3-STATE Outputs	48								MTD	MTDX			SSC	SSCX
74ACTQ16543	16-Bit Registered Transceiver 3-STATE Outputs	56								MTD	MTDX			SSC	SSCX
74ACTQ16646	16-Bit Transceiver/Register 3-STATE Outputs	56								MTD	MTDX			SSC	SSCX
74ACTQ18823	18-Bit D Flip-Flop 3-STATE Outputs	56								MTD	MTDX			SSC	SSCX
74ACTQ18825	18-Bit Buffer/Line Driver 3-STATE Outputs	56								MTD	MTDX			SSC	SSCX

## 74ALVC

Fairchild ALVC(H) is an advanced CMOS Low Voltage Logic family operating at 3.6V to 1.65V  $V_{CC}$  operation. Fully spec-for-spec compatible with other ALVCH Logic suppliers, Fairchild ALVC(H) devices can replace already designed in ALVC(H) sockets from competitors. ALVC(H) devices have functions that operate from 4- to 32-bits and have output drive in the 24mA range. On a performance scale, ALVCH fits in between the more mature LCX (3.6V to 2.5V  $V_{CC}$ ) family and the higher performance VCX (3.6V to 1.2V  $V_{CC}$ ) family.

Function	Description	Leads/ Balls	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	BGA	BGA T&R
74ALVC00	Quad 2-Input NAND Gate	14	M	MX			MTC	MTCX		
74ALVC08	Quad 2-Input AND Gate	14	M	MX			MTC	MTCX		
74ALVC32	Quad 2-Input OR Gate	14	M	MX			MTC	MTCX		
74ALVC38	Quad 2-Input NAND Gate w/Open Drain Outputs	14	M	MX			MTC	MTCX		
74ALVC86	Quad 2-Input Exclusive-OR Gate	14	M	MX			MTC	MTCX		
74ALVC132	Quad 2-Input NAND Gate w/Schmitt Trigger Inputs	14	M	MX			MTC	MTCX		
74ALVC245	Bidirectional Transceiver	20			WM	WMX	MTC	MTCX		
74ALVC2245	Bidirectional Transceiver	20			WM	WMX	MTC	MTCX		
74ALVC16240	16-Bit Inverting Buffer/Line Driver	48					MTD	MTDX		
74ALVC16244	16-Bit Buffer/Line Driver	48/54					MTD	MTDX		GX
74ALVC16245	16-Bit Bidirectional Transceiver	48					MTD	MTDX		
74ALVC16373	16-Bit Transparent Latch	48					MTD	MTDX		
74ALVC16374	16-Bit D-Type Flip-Flop	48/54					MTD	MTDX		GX
74ALVC16500	18-Bit Universal Bus Transceivers	56					MTD	MTDX		
74ALVC16501	18-Bit Universal Bus Transceivers	56					MTD	MTDX		
74ALVC16601	18-Bit Universal Bus Transceivers	56					MTD	MTDX		
74ALVC16721	20-Bit D-Type Flip-Flops	56					MTD	MTDX		
74ALVC16722	22-Bit Register	64					MTD	MTDX		
74ALVC16821	20-Bit D-Type Flip-Flops	56					MTD	MTDX		
74ALVC16827	20-Bit Buffer/Line Driver	56					MTD	MTDX		
74ALVC16835	18-Bit Universal Bus Driver	56					MTD	MTDX		
74ALVC16838	16-Bit Selectable Register/Buffer	48					MTD	MTDX		
74ALVC16839	20-Bit Selectable Register/Buffer	56					MTD	MTDX		
74ALVC16841	20-Bit Transparent Latch	56					MTD	MTDX		
74ALVC162240	16-Bit Inverting Buffer/Line Driver	48					T	TX		
74ALVC162244	16-Bit Buffer/Line Driver	48/54					T	TX		GX
74ALVC162245	16-Bit Bidirectional Transceiver	48					T	TX		
74ALVC162373	16-Bit Transparent Latch	48					T	TX		
74ALVC162374	16-Bit D-Type Flip-Flop	48					T	TX		
74ALVC162601	18-Bit Universal Bus Transceivers	56					T	TX		
74ALVC162827	20-Bit Buffer/Line Driver	56					T	TX		
74ALVC162835	18-Bit Universal Bus Driver	56					T	TX		
74ALVC162838	16-Bit Selectable Register/Buffer	48					T	TX		
74ALVC162839	20-Bit Selectable Register/Buffer	56					T	TX		
74ALVCF162835	18-Bit Universal Bus Driver	56					T	TX		
74ALVCF322835	Low Voltage 36-Bit Universal Bus Driver w/ 3.6V Tolerant Outputs and 26 Ohm Series Resistors in Outputs	114							G	GX
74ALVCH245	Bidirectional Transceiver w/Bushold	20			WM	WMX	MTC	MTCX		
74ALVCH2245	Bidirectional Transceiver w/Bushold	20			WM	WMX	MTC	MTCX		
74ALVCH16240	16-Bit Inverting Buffer/Line Driver w/Bushold	48					T	TX		
74ALVCH16244	16-Bit Buffer/Line Driver w/Bushold	48					T	TX		
74ALVCH16373	16-Bit Transparent Latch w/Bushold	48					T	TX		
74ALVCH16374	16-Bit D-Type Flip-Flop w/Bushold	48					T	TX		
74ALVCH162240	16-Bit Inverting Buffer/Line Driver	48					T	TX		
74ALVCH162244	16-Bit Buffer/Line Driver w/Bushold	48					T	TX		
74ALVCH162373	16-Bit Transparent Latch w/Bushold	48					T	TX		
74ALVCH162374	16-Bit D-Type Flip-Flop w/Bushold	48					T	TX		
74ALVCR162601	18-Bit Universal Bus Transceivers	56					T	TX		

## Alpha-Numeric Product Listing

### 74Fxx, 29Fxx, 9403A – FAST® Bipolar Logic

FAST (Fairchild Advanced Schottky TTL) logic is seen as the state-of-the-art TTL family. FAST products offer a 20% – 30% performance improvement over standard Schottky (74S) with a 75% – 80% reduction in power. FAST is almost equal in performance to 74AS, with the added benefit of a 25% to 50% savings in power.

Function	Description	Lead	DIP	SOP T&R	SOP	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T&R	PLCC	PLCC T&R
29F52	8-Bit Registered Transceiver	24	SPC					SC	SCX						
29F53	8-Bit Registered Transceiver	24	SPC												
74F00	Quad 2-Input NAND Gate	14	PC	SJ	SJX	SC	SCX								
74F02	Quad 2-Input NOR Gate	14	PC												
74F04	Hex Inverter	14	PC	SJ	SJX	SC	SCX								
74F08	Quad 2-Input AND Gate	14	PC	SJ	SJX	SC	SCX								
74F10	Triple 3-Input NAND Gate	14	PC	SJ	SJX	SC	SCX								
74F11	Triple 3-Input AND Gate	14	PC	SJ	SJX	SC	SCX								
74F14	Hex Inverter Schmitt Trigger	14	PC	SJ	SJX	SC	SCX								
74F20	Dual 4-Input NAND Gate	14	PC	SJ	SJX	SC	SCX								
74F27	Triple 3-Input NOR Gate	14	PC	SJ	SJX	SC	SCX								
74F30	8-Input NAND Gate	14	PC	SJ	SJX	SC	SCX								
74F32	Quad 2-Input OR Gate	14	PC	SJ	SJX	SC	SCX								
74F37	Quad 2-Input NAND Buffer	14	PC	SJ	SJX	SC	SCX								
74F38	Quad 2-Input NAND Buffer (Open Collector)	14	PC	SJ	SJX	SC	SCX								
74F51	Dual 2-Wide 2-Input; 2-Wide 3-Input AND-OR-Invert Gate	14	PC	SJ	SJX	SC	SCX								
74F64	4-2-3-2-Input AND/OR Invert Gate	14	PC	SJ	SJX	SC	SCX								
74F74	Dual D-Type Positive Edge-Triggered Flip-Flop	14	PC	SJ	SJX	SC	SCX								
74F86	2-Input Exclusive-OR Gate	14	PC	SJ	SJX	SC	SCX								
74F109	Dual JK# Positive Edge-Triggered Flip-Flop	16	PC	SJ	SJX	SC	SCX								
74F112	Dual JK Negative Edge-Triggered Flip-Flop	16	PC	SJ	SJX	SC	SCX								
74F113	Dual JK Negative Edge-Triggered Flip-Flop	14	PC	SJ	SJX	SC	SCX								
74F114	Dual JK Negative Edge-Triggered Flip-Flop w/Common Clocks and Clears	14	PC			SC	SCX								
74F125	Quad Buffer (3-STATE)	14	PC	SJ	SJX	SC	SCX								
74F132	Quad 2-Input NAND Schmitt Trigger	14	PC	SJ	SJX	SC	SCX								
74F138	1-of-8 Decoder/Demultiplexer	16	PC	SJ	SJX	SC	SCX								
74F139	Dual 1-to-4 Decoder/Demultiplexer	16	PC	SJ	SJX	SC	SCX								
74F148	8-Line to 3-Line Priority Encoder	16	PC	SJ	SJX	SC	SCX								
74F151A	8-Input Multiplexer	16	PC	SJ	SJX	SC	SCX								
74F153	Dual 4-Input Multiplexer	16	PC	SJ	SJX	SC	SCX								
74F157A	Quad 2-Input Multiplexer	16	PC	SJ	SJX	SC	SCX								
74F158A	Quad 2-Input Multiplexer	16	PC	SJ	SJX	SC	SCX								
74F160A	Synchronous Presettable BCD Decade Counter (Asynchronous Reset)	16	PC	SJ	SJX	SC	SCX								
74F161A	Synchronous Presettable 4-Bit Binary Counter (Asynchronous Reset)	16	PC	SJ	SJX	SC	SCX								
74F162A	Synchronous Presettable BCD Decade Counter (Synchronous Reset)	16	PC			SC	SCX								
74F163A	Synchronous Presettable 4-Bit Binary Counter (Synchronous Reset)	16	PC	SJ	SJX	SC	SCX								
74F164A	Serial-In Parallel-Out Shift Register	14	PC	SJ	SJX	SC	SCX								
74F169	4-State Synchronous Bidirectional Counter	16	PC	SJ	SJX	SC	SCX								
74F174	Hex D-Type Flip-Flop w/Master Reset	16	PC	SJ	SJX	SC	SCX								
74F175	Quad D-Type Flip-Flop	16	PC	SJ	SJX	SC	SCX								
74F181	4-Bit Arithmetic Logic Unit	24	PC					SC	SCX						
74F182	Carry Lookahead Generator	16	PC	SJ	SJX										
74F189	64-Bit Random Access Memory w/3-STATE Outputs	16	PC	SJ	SJX			SC	SCX						
74F190	Up/Down Decade Counter w/Preset and Ripple Clock	16	PC			SC	SCX								
74F191	Up/Down Binary Counter w/Preset and Ripple Clock	16	PC	SJ	SJX	SC	SCX								
74F192	Up/Down Decade Counter w/Separate Up/Down Clocks	16	PC	SJ											
74F193	Up/Down Binary Counter w/Separate Up/Down Clocks	16	PC	SJ	SJX	SC	SCX								
74F194	4-Bit Bidirectional Universal Shift Register	16	PC	SJ	SJX	SC	SCX								
74F219	64-Bit Random Access Memory w/3-STATE Outputs	16	PC	SJ	SJX			SC	SCX						
74F240	Octal Buffer/Line Driver w/3-STATE Outputs (Inverting)	20	PC	SJ	SJX			SC	SCX						
74F241	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX						
74F243	Quad Bus Transceiver w/3-STATE Outputs	14				SC	SCX								

## 74Fxx, 29Fxx, 9403A – FAST® Bipolar Logic (cont.)

Function	Description	Lead	DIP	SOP T&R	SOP	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T&R	PLCC	PLCC T&R
74F244	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX			MSA	MSAX		
74F245	Octal Bidirectional Transceiver w/3-STATE Inputs/ Outputs	20	PC	SJ	SJX			SC	SCX	MTX	MTCX	MSA	MSAX		
74F251A	8-Input Multiplexer w/3-STATE Outputs	16	PC	SJ	SJX	SC	SCX								
74F253	Dual 4-Bit Multiplexer w/3-STATE Outputs	16	PC	SJ	SJX	SC	SCX								
74F257A	Quad 2-Input Multiplexer w/3-STATE Outputs	16	PC	SJ	SJX	SC	SCX								
74F258A	Quad 2-Input Multiplexer w/3-STATE Outputs	16	PC	SJ	SJX	SC	SCX								
74F269	8-Bit Bidirectional Binary Counter	24	SPC					SC	SCX						
74F273	Octal D-Type Flip-Flop	20	PC	SJ	SJX			SC	SCX						
74F280	9-Bit Parity Generator/Checker	14	PC	SJ	SJX	SC	SCX								
74F283	4-Bit Binary Full Adder w/Fast Carry	16	PC	SJ	SJX	SC	SCX								
74F299	Octal Universal Shift/Storage Register w/Common Parallel I/O Pins	20	PC	SJ	SJX			SC	SCX						
74F322	Octal Serial/Parallel Register w/Sign Extend	20	PC												
74F323	Octal Universal Shift/Storage Register w/ Synchronous Reset and Common I/O Pins	20	PC						SCX						
74F350	4-Bit Shifter w/3-STATE Outputs	16	PC	SJ		SC	SCX								
74F352	Dual 4-Input Multiplexer	16	PC	SJ											
74F365	Hex Buffer/Driver w/3-STATE Outputs	16	PC			SC	SCX								
74F366	Hex Inverter/Buffer w/3-STATE Outputs	16	PC			SC	SCX								
74F368	Hex Inverter/Buffer w/3-STATE Outputs	16	PC	SJ		SC	SCX								
74F373	Octal Transparent Latch w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX			MSA	MSAX		
74F374	Octal D-Type Flip-Flop w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX			MSA	MSAX		
74F377	Octal D-Type Flip-Flop w/Clock Enable	20	PC	SJ	SJX			SC	SCX						
74F378	Parallel D-Type Register w/Enable	16	PC	SJ	SJX	SC	SCX								
74F379	Quad Parallel Register w/Enable	16	PC	SJ	SJX	SC	SCX								
74F381	4-Bit Arithmetic Logic Unit	20	PC	SJ	SJX			SC							
74F382	4-Bit Arithmetic Logic Unit	20	PC	SJ				SC	SCX						
74F398	Quad 2-Port Register	20	PC					SC	SCX						
74F399	Quad 2-Port Register	16	PC	SJ	SJX	SC	SCX								
74F401	CRC Generator/Checker	14	PC			SC	SCX								
74F402	Serial Data Polynomial Generator/Checker	16	PC												
74F403A	First-In First-Out (FIFO) Buffer Memory	24	SPC												
74F413	64 x 4 First-In First-Out Buffer Memory w/ Parallel I/O	16	PC												
74F433	First-In First-Out (FIFO) Buffer Memory	24	SPC												
74F521	8-Bit Identity Comparator	20	PC	SJ	SJX			SC	SCX			MSA	MSAX		
74F524	8-Bit Registered Comparator	20	PC					SC	SCX						
74F533	Octal Transparent Latch w/3-STATE Outputs	20	PC	SJ				SC	SCX						
74F534	Octal D-Type Flip-Flop w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX						
74F537	1-of-10 Decoder w/3-STATE Outputs	20	PC					SC	SCX						
74F538	1-of-8 Decoder w/3-STATE Outputs	20	PC	SJ				SC	SCX						
74F539	Dual 1-of-4 Decoder w/3-STATE Outputs	20	PC					SC	SCX						
74F540	Octal Buffer/Line Driver w/3-STATE Outputs (Inverting)	20	PC	SJ	SJX			SC	SCX						
74F541	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX						
74F543	Octal Registered Transceiver	24	PC					SC	SCX			MSA	MSAX		
74F544	Octal Registered Transceiver	24	SPC					SC	SCX			MSA	MSAX		
74F545	Octal Bidirectional Transceiver w/3-STATE Inputs/ Outputs	20	PC					SC	SCX						
74F552	Octal Registered Transceiver w/Parity and Flags	28						SC	SCX					QC	
74F563	Octal D-Type Latch w/3-STATE Outputs	20	PC	SJ				SC	SCX						
74F564	Octal D-Type Flip-Flop w/3-STATE Outputs	20	PC	SJ											
74F569	4-Bit Bidirectional Decade Counter w/3-STATE Outputs	20	PC	SJ				SC	SCX						
74F573	Octal D-Type Latch w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX						
74F574	Octal D-Type Flip-Flop w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX						
74F579	8-Bit Bidirectional Binary Counter w/3-STATE Outputs	20	PC	SJ				SC	SCX						
74F583	4-Bit BCD Adder	16	PC					SC	SCX						
74F620	Inverting Octal Bus Transceiver w/3-STATE Outputs	20	PC												
74F623	Inverting Octal Bus Transceiver w/3-STATE Outputs	20	PC					SC	SCX						
74F640	Octal Bus Transceiver w/3-STATE Outputs	20	PC					SC	SCX						
74F645	Octal Bus Transceiver w/3-STATE Outputs	20	PC												
74F646	Octal Bus Transceiver and Register w/3-STATE Outputs	24	SPC					SC	SCX			MSA	MSAX		
74F646B	Octal Bus Transceiver and Register w/3-STATE Outputs	24	SPC					SC	SCX						

## Alpha-Numeric Product Listing

### 74Fxx, 29Fxx, 9403A – FAST® Bipolar Logic (cont.)

Function	Description	Lead	DIP	SOP T&R	SOP	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T&R	PLCC	PLCC T&R
74F648	Octal Bus Transceiver and Register w/3-STATE Outputs	24	SPC					SC	SCX						
74F651	Transceivers/Registers	24	SPC					SC	SCX						
74F652	Transceivers/Registers	24	SPC					SC	SCX						
74F657	Octal Bidirectional Transceiver w/8-Bit Parity Generator/Checker and 3-STATE Outputs	24	SPC					SC	SCX						
74F673A	16-Bit Serial-In Serial/Parallel-Out Shift Register	24	PC					SC	SCX						
74F675A	16-Bit Serial-In Serial/Parallel-Out Shift Register	24	PC					SC	SCX						
74F676	16-Bit Serial/Parallel-In Serial-Out Shift Register	24	PC					SC	SCX						
74F779	8-Bit Bidirectional Binary Counter w/3-STATE Outputs	16	PC					SC	SCX						
74F794	8-Bit Register w/Read Back	20	PC					SC	SCX						
74F821	10-Bit D-Type Flip-Flop	24	SPC					SC	SCX						
74F823	9-Bit D-Type Flip-Flop	24	SPC					SC	SCX						
74F825	8-Bit D-Type Flip-Flop	24	SPC					SC	SCX						
74F827	10-Bit Buffer/Line Driver	24	SPC					SC	SCX						
74F828	10-Bit Buffer/Line Driver	24	SPC					SC	SCX						
74F841	10-Bit Transparent Latch	24	SPC					SC	SCX						
74F843	9-Bit Transparent Latch	24	SPC					SC	SCX						
74F845	8-Bit Transparent Latch	24	SPC					SC	SCX						
74F899	9-Bit Latchable Transceiver w/Parity Generator/Checker	28						SC	SCX					QC	QCX
74F1056	8-Bit Schottky Barrier Diode Array	16				SC	SCX								
74F1071	18-Bit Undershoot/Overshoot Clamp and ESD Protection Device	20						SC	SCX	MTC	MTCX	MSA	MSAX		
74F2240	Octal Buffer/Line Driver w/25 Ohm Series Resistors in the Outputs	20						SC	SCX					QC	QCX
74F2243	Quad Bus Transceiver w/25 Ohm Series Resistors in the Outputs	14				SC	SCX								
74F2244	Octal Buffer/Line Driver w/25 Ohm Series Resistors in the Outputs	20	PC					SC	SCX			MSA	MSAX		
74F2645	Octal Bus Transceiver w/25 Ohm Series Resistor in the Outputs	20						SC	SCX						
9403A	First-In First-Out (FIFO) Buffer Memory	24	PC												

### 74FRxx – FASTr™ Bipolar Logic

Fairchild's FASTr family is a selected group of parts that offer additional speed over FAST logic. Having the highest speeds attainable in a standard logic TTL product, FASTr is 60% faster than FAST. This high-speed family is ideal where a device is constantly driving a bus at high frequency. It offers latchup immunity, built-in noise-reduction circuitry, and device skew specifications.

Function	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	SSOP	SSOP T&R	PLCC
74FR74	Dual D-Type Flip-Flop	14	PC			SC	SCX					
74FR240	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX			
74FR244	Octal Buffer/Line Driver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX			
74FR245	Octal Bi-Directional Transceiver w/3-STATE Outputs	20	PC	SJ	SJX			SC	SCX			
74FR543	Octal Latched Transceiver w/3-STATE Outputs	24	SPC					SC	SCX			
74FR573	Octal D-Type Latch w/3-STATE Outputs	20	PC					SC	SCX			
74FR900	9-Bit 3-Port Latchable Datapath Multiplexer	48								SSC	SSCX	
74FR1074	Dual D-Type Flip-Flop	14	PC			SC	SCX					
74FR2240	Octal Buffer/Line Driver w/25 Ohm Series Resistors in the Outputs	20	PC					SC	SCX			
74FR2244	Octal Buffer/Line Driver w/25 Ohm Series Resistors in the Outputs	20	PC	SJ				SC	SCX			
74FR2245	Octal Bidirectional Transceiver w/3-STATE Outputs	20						SC	SCX			
74FR9240	9-Bit Buffer/Line Driver w/3-STATE Outputs	24	SPC					SC	SCX			
74FR9244	9-Bit Buffer/Line Driver w/3-STATE Outputs	24	SPC					SC	SCX			
74FR9245	9-Bit Bidirectional Transceiver w/3-STATE Outputs	24	SPC					SC	SCX	MSA	MSAX	
74FR16245	16-Bit Transceiver w/3-STATE Outputs	44/48								SSC	SSCX	QC
74FR16540	16-Bit Buffer/Line Driver w/3-STATE Outputs	44/48								SSC	SSCX	QC
74FR16541	16-Bit Buffer/Line-Driver w/3-STATE Outputs	44/48								SSC	SSCX	QC
74FR25900	9-Bit 3-Port Latchable Datapath Multiplexer w/25 Ohm Output Series Resistors	48								SSC	SSCX	

## 74LCXxx – CROSSVOLT™ LCX Low Voltage Logic

Fairchild's *CROSSVOLT* LCX low voltage logic series is the leading performer in 3.3V-optimized logic. LCX is specified at 3.3V and 2.5V. It is comprised of gates, octals, and 16-bit devices. LCX products have maximum propagation delays of 6.5ns for octals, sub-5ns for 16-bit functions, low CMOS power, input and output over-voltage tolerance, and balanced high drive.

Function	Description	Lead/ Balls	SOP	SOP T&R	SOIC	SOIC T&R	SOIC Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T&R	BGA	BGA T&R
74LCX00	Quad 2-Input NAND Gate w/5V Tolerant Inputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX02	Quad 2-Input NOR Gate w/5V Tolerant Inputs	14			M	MX			MTC	MTCX				
74LCX04	Hex Inverter w/5V Tolerant Inputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX06	Hex Inverter/Buffer w/Open Drain Outputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX07	Hex Buffer w/Open Drain Outputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX08	Quad 2-Input AND Gate w/5V Tolerant Inputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX10	Triple 3-Input NAND Gate w/5V Tolerant Inputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX11	Triple 3-Input AND Gate w/5V Tolerant Inputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX14	Hex Inverter w/5V Tolerant Schmitt Trigger Inputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX27	Triple 3-Input NOR Gate w/5V Tolerant Inputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX32	Quad 2-Input OR Gate w/5V Tolerant Inputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX38	Quad 2-Input NAND Gate (Open Drain) w/5V Tolerant Inputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX74	Dual D-Type Positive Edge-Triggered Flip-Flop w/5V Tolerant Inputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX86	Quad 2-Input Exclusive-OR Gate w/5V Tolerant Inputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX112	Dual J-K Negative Edge-Triggered Flip-Flop w/5V Tolerant Inputs	16	SJ	SJX	M	MX			MTC	MTCX				
74LCX125	Quad Buffer w/5V Tolerant Inputs and Outputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX126	Quad Buffer w/5V tolerant Inputs and Outputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LCX138	1-of-8 Decoder/Demultiplexer w/5V Tolerant Inputs	16	SJ	SJX	M	MX			MTC	MTCX				
74LCX157	Quad 2-Input Multiplexer w/5V Tolerant Inputs	16	SJ	SJX	M	MX			MTC	MTCX				
74LCX240	Octal Buffer/Line Driver w/5V Tolerant Inputs and Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX241	Octal Buffer/Line Driver w/5V Tolerant Inputs and Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX244	Buffer/Line Driver w/5V Tolerant Inputs and Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX245	Bidirectional Transceiver w/5V Tolerant Inputs and Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX257	Quad 2-Input Multiplexer w/5V Tolerant Inputs and Outputs	16	SJ	SJX	M	MX			MTC	MTCX				
74LCX373	Octal Transparent Latch w/5V Tolerant Inputs and Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX374	Octal D-Type Flip-Flop w/5V Tolerant Inputs and Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX540	Octal Buffer/Line Driver w/5V Tolerant Inputs and Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX541	Octal Buffer/Line Driver w/5V Tolerant Inputs and Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX543	Octal Registered Transceiver w/5V Tolerant Inputs and Outputs	24					WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX573	Octal Latch w/5V Tolerant Input and Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX574	Octal D-Type Flip-Flop w/5V Tolerant Inputs and Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX646	Octal Transceiver/Register w/5V Tolerant Inputs and Outputs	24					WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX652	Transceiver/Register w/5V Tolerant Inputs and Outputs	24					WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX760	Buffer/Line Driver w/5V Tolerant Inputs and Open Drain Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX821	10-Bit D-Type Flip-Flop w/5V Tolerant Inputs and Outputs	24					WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX841	10-Bit Transparent Latch w/5V Tolerant Inputs and Outputs	24					WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX2244	Buffer/Line Driver w/5V Tolerant Inputs and Outputs w/26 Ohm Series Resistors in t	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCX16240	16-Bit Inverting Buffer/Line Driver w/5V Tolerant Inputs/Outputs	48							MTD	MTDX	MEA	MEAX		
74LCX16244	16-Bit Buffer/Line Driver w/5V Tolerant Inputs and Outputs	48/54							MTD	MTDX	MEA	MEAX		GX
74LCX16245	16-Bit Bidirectional Transceiver w/5V Tolerant Inputs and Outputs	48/54							MTD	MTDX	MEA	MEAX	G	GX
74LCX16373	16-Bit Transparent Latch w/5V Tolerant Inputs and Outputs	48/54							MTD	MTDX	MEA	MEAX	G	GX
74LCX16374	16-Bit D-Type Flip-Flop w/5V Tolerant Inputs and Outputs	48/54							MTD	MTDX	MEA	MEAX	G	GX
74LCX16500	18-Bit Universal Bus Transceivers w/5V Tolerant Inputs and Outputs	56/54							MTD	MTDX	MEA	MEAX		GX
74LCX16501	18-Bit Universal Bus Transceivers w/5V Tolerant Inputs and Outputs	56							MTD	MTDX	MEA	MEAX		
74LCX16543	16-Bit Registered Transceiver w/5V Tolerant Inputs and Outputs	56							MTD	MTDX	MEA	MEAX		
74LCX16646	16-Bit Transceiver/Register w/5V Tolerant Inputs and Outputs	56							MTD	MTDX	MEA	MEAX		
74LCX16652	Transceiver/Register w/5V Tolerant Inputs and Outputs	56							MTD	MTDX	MEA	MEAX		
74LCX16821	20-Bit D-Type Flip-Flops w/5V Tolerant Inputs and Outputs	56							MTD	MTDX	MEA	MEAX		
74LCX16841	20-Bit Transparent Latch w/5V Tolerant Inputs and Outputs	56							MTD	MTDX	MEA	MEAX		
74LCX32244	32-Bit Buffer/Line Driver w/5V Tolerant Inputs and Outputs	96											G	GX
74LCX32245	32-Bit Bidirectional Transceiver w/5V Tolerant Inputs and Outputs	96											G	GX



## Alpha-Numeric Product Listing

### 74LCXxx – CROSSVOLT™ LCX Low Voltage Logic (cont.)

Function	Description	Lead/ Balls	SOP	SOP T&R	SOIC	SOIC T&R	SOIC Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T&R	BGA	BGA T&R
74LCX32500	36-Bit Universal Bus Transceivers w/5V Tolerant Inputs and Outputs	114											G	GX
74LCX162244	16-Bit Buffer/Line Driver w/26 Ohm Series Resistors in Outputs	48							MTD	MTDX	MEA	MEAX		
74LCX162373	16-Bit Transparent Latch w/5V Tolerant Inputs and Outputs and 26 Ohm Series Resistors	48							MTD	MTDX	MEA	MEAX		
74LCX162374	16-Bit D-Type Flip-Flop w/5V Tolerant Inputs and Outputs and 26 Ohm Series Resistors	48							MTD	MTDX	MEA	MEAX		
74LCXH245	Bidirectional Transceiver w/Bushold	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCXH2245	Bidirectional Transceiver w/Bushold and 26 Ohm Series Resistors in B Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCXH16244	16-Bit Buffer/Line Driver w/Bushold	48/54							MTD	MTDX	MEA	MEAX	G	GX
74LCXH16245	Low Voltage 32-Bit Bidirectional Transceiver w/Bushold	48/84							MTD	MTDX			G	GX
74LCXH16374	16-Bit D-Type Flip-Flop w/Bushold	48/54							MTD	MTDX	MEA	MEAX		GX
74LCXH162244	16-Bit Buffer/Line Driver w/Bushold and 26 Ohm Series Resistors in Outputs	48							MTD	MTX	MEA	MEX		
74LCXH162373	16-Bit Transparent Latch w/Bushold and 26 Ohm Series Resistor Outputs	48							MTD	MTX	MEA	MEX		
74LCXH162374	16-Bit D-Type Flip-Flop w/Bushold and 26 Ohm Series Resistors in Outputs	48							MTD	MTX	MEA	MEX		
74LCXH32245	Low Voltage 32-Bit Bidirectional Transceiver w/5V Tolerant Inputs/Outputs w/Bushold	96											G	GX
74LCXP16245	16-Bit Bidirectional Transceiver w/5V Tolerant Inputs/Outputs and Pull-Down Resistors	48							MTD	MTDX	MEA	MEAX		
74LCXR2245	Bidirectional Transceiver w/5V Tolerant Inputs and Outputs and 26 Ohm Series Resistors	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LCXR162245	16-Bit Bidirectional Transceiver w/5V Tolerant Inputs/Outputs and 26 Ohm Series Resistors	48							MTD	MTX	MEA	MEX		
74LCXZ245	Bidirectional Transceiver w/5V Tolerant Inputs and Outputs	20	SJ				WM	WMX	MTC	MTCX	MSA	MSAX		
74LCXZ2245	Bidirectional Transceiver w/5V Tolerant Inputs and Outputs and 26 Ohm Series Resistors	20	SJ				WM	WMX	MTC	MTCX	MSA	MSAX		
74LCXZ16240	Low Voltage 32-Bit Inverting Buffer/Line Driver w/5V Tolerant Inputs/Outputs	48							MTD	MTDX	MEA	MEAX		
74LCXZ16244	16-Bit Buffer/Line Driver w/5V Tolerant Inputs and Outputs	48							MTD	MTDX	MEA	MEAX		
74LCXZ16245	Low Voltage 16-Bit Bidirectional Transceiver w/5V Tolerant Inputs/Outputs	48							MTD	MTDX				
74LCXZ162244	16-Bit Buffer/Line Driver w/5V Tolerant Inputs/Outputs and 26 Ohm Series Resistors	48							MTD	MTX	MEA	MEX		

### 74LVQxxx – LVQ Low Voltage Logic

LVQ is a 3.3V family designed to perform similar to FACT — except powered at 3.3V. This is Fairchild's original low voltage series.

FUNCTION	Description	Lead	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	QSOP	QSOP T&R
74LVQ00	Quad 2-Input NAND Gate	14	SJ	SJX	SC	SCX				
74LVQ04	Hex Inverter	14	SJ	SJX	SC	SCX				
74LVQ08	Quad 2-Input AND Gate	14	SJ	SJX	SC	SCX				
74LVQ14	Hex Inverter w/Schmitt Trigger Input	14	SJ	SJX	SC	SCX				
74LVQ32	Quad 2-Input OR Gate	14	SJ	SJX	SC	SCX				
74LVQ74	Dual D-Type Positive Edge-Triggered Flip-Flop	14	SJ	SJX	SC	SCX				
74LVQ86	Quad 2-Input Exclusive-OR Gate	14	SJ	SJX	SC	SCX				
74LVQ125	Quad Buffer w/3-STATE Outputs	14	SJ	SJX	SC	SCX				
74LVQ138	1-of-8 Decoder/Demultiplexer	16	SJ	SJX	SC	SCX				
74LVQ151	8-Input Multiplexer	16	SJ	SJX	SC	SCX				
74LVQ157	Quad 2-Input Multiplexer	16	SJ	SJX	SC	SCX				
74LVQ174	Hex D Flip-Flop w/Master Reset	16	SJ	SJX	SC	SCX				
74LVQ240	Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			SC	SCX	QSC	QSCX
74LVQ241	Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			SC	SCX	QSC	QSCX
74LVQ244	Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			SC	SCX	QSC	QSCX
74LVQ245	Octal Bidirectional Transceiver w/3-STATE Inputs/Outputs	20	SJ	SJX			SC	SCX	QSC	QSCX
74LVQ273	Octal D Flip-Flop	20	SJ	SJX			SC	SCX	QSC	QSCX
74LVQ373	Octal Transparent Latch w/3-STATE Outputs	20	SJ	SJX			SC	SCX	QSC	QSCX
74LVQ374	Octal D Flip-Flop w/3-STATE Outputs	20	SJ	SJX			SC	SCX	QSC	QSCX
74LVQ573	Octal Latch w/3-STATE Outputs	20	SJ	SJX			SC	SCX	QSC	QSCX



**74LVTxx – CROSSVOLT™ LVT Low Voltage Logic**

Fabricated on an advanced BiCMOS process, *CROSSVOLT* LVT is a 3.3V family designed to perform similar to ABT — except powered at 3.3V. Fairchild's LVT low voltage series features live insertion/extraction, power-up and power-down 3-STATE outputs, and options with bushold inputs (LVTH). LVT products consist of octal and 16-bit functions.

FUNCTION	Description	Leads/ Balls	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T&R	BGA T&R
74LVT240	Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX	
74LVT244	Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX	
74LVT245	Octal Bidirectional Transceiver w/3-STATE Inputs/Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX	
74LVT373	Octal Transparent Latch w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX			
74LVT374	Octal D-Type Flip-Flop w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX			
74LVT573	Octal Transparent Latch w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX	
74LVT574	Octal D-Type Flip-Flop w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX	
74LVT2240	Inverting Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX			
74LVT2244	Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX			
74LVT2245	Octal Bidirectional Transceiver w/3-STATE Inputs/ Outputs and 25 Ohm Series Resistors	20	SJ	SJX			WM	WMX	MTC	MTCX			
74LVT16240	16-Bit Inverting Buffer/Line Driver w/3-STATE Outputs	48							MTD	MTDX	MEA	MEAX	
74LVT16244	16-Bit Buffer/Line Driver w/3-STATE Outputs	48							MTD	MTDX	MEA	MEAX	
74LVT16245	16-Bit Transceiver w/3-STATE Outputs	48							MTD	MTDX	MEA	MEAX	
74LVT16373	16-Bit Transparent Latch w/3-STATE Outputs	48							MTD	MTDX	MEA	MEAX	
74LVT16374	16-Bit D Flip-Flop w/3-STATE Outputs	48							MTD	MTDX	MEA	MEAX	
74LVT162240	16-Bit Inverting Buffer/Line Driver w/3-STATE Outputs and 25 Ohm Series Resistors in	48							MTD	MTDX	MEA	MEAX	
74LVT162244	16-Bit Buffer/Line Driver w/3-STATE Outputs and 25 Ohm Series Resistors in the Output	48/54							MTD	MTDX	MEA	MEAX	GX
74LVT162245	16-Bit Transceiver w/3-STATE Outputs and 25 Ohm Series Resistors in A Port Outputs	48							MTD	MTDX	MEA	MEAX	

**74LVTHxxx – CROSSVOLT™ LVT Low Voltage Logic with Bushold**

FUNCTION	Description	Leads/ Balls	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T&R	BGA	BGA T&R
74LVTH125	Quad Buffer w/3-STATE Outputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LVTH240	Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LVTH244	Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LVTH245	Octal Bidirectional Transceiver w/3-STATE Inputs/Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LVTH273	Octal D-Type Flip-Flop w/Clear	20	SJ	SJX			WM	WMX	MTC	MTCX				
74LVTH373	Octal Transparent Latch w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX				
74LVTH374	Octal D-Type Flip-Flop w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX				
74LVTH543	Octal Registered Transceiver w/3-STATE Outputs	24					WM	WMX	MTC	MTCX				
74LVTH573	Octal Transparent Latch w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LVTH574	Octal D-Type Flip-Flop w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX	MSA	MSAX		
74LVTH646	Octal Transceiver/Register w/3-STATE Outputs	24					WM	WMX	MTC	MTCX				
74LVTH652	Octal Transceiver/Register w/3-STATE Outputs	24					WM	WMX	MTC	MTCX				
74LVTH2240	Inverting Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX				
74LVTH2244	Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			WM	WMX	MTC	MTCX				
74LVTH2245	Octal Bidirectional Transceiver w/3-STATE Inputs/ Outputs and 25 Ohm Series Resistors	20	SJ	SJX			WM	WMX	MTC	MTCX				
74LVTH16240	16-Bit Inverting Buffer/Line Driver w/3-STATE Outputs	48							MTD	MTDX	MEA	MEAX		
74LVTH16244	16-Bit Buffer/Line Driver w/3-STATE Outputs	48/54							MTD	MTDX	MEA	MEAX		GX
74LVTH16245	16-Bit Transceiver w/3-STATE Outputs	48							MTD	MTDX	MEA	MEAX		
74LVTH16373	16-Bit Transparent Latch w/3-STATE Outputs	48							MTD	MTDX	MEA	MEAX		
74LVTH16374	16-Bit D Flip-Flop w/3-STATE Outputs	48							MTD	MTDX	MEA	MEAX		GX
74LVTH16500	18-Bit Universal Bus Transceivers w/3-STATE Outputs	56							MTD	MTDX	MEA	MEAX		
74LVTH16501	18-Bit Universal Bus Transceivers w/3-STATE Outputs	56							MTD	MTDX	MEA	MEAX		
74LVTH16543	16-Bit Registered Transceiver w/3-STATE Outputs	56							MTD	MTDX	MEA	MEAX		
74LVTH16646	16-Bit Transceiver/Register w/3-STATE Outputs	56							MTD	MTDX	MEA	MEAX		
74LVTH16652	16-Bit Transceiver/Register w/3-STATE Outputs	56							MTD	MTDX	MEA	MEAX		
74LVTH16835	18-Bit Universal Bus Driver w/3-STATE Outputs	56							MTD	MTDX	MEA	MEAX		
74LVTH16952	16-Bit Registered Transceiver w/3-STATE Outputs	56							MTD	MTDX	MEA	MEAX		
74LVTH32374	32-Bit D-Type Flip-Flop w/3-STATE Outputs	96											G	GX

## Alpha-Numeric Product Listing

### 74LVTHxxx – CROSSVOLT™ LVT Low Voltage Logic with Bushold (cont.)

FUNCTION	Description	Leads/ Balls	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T&R	BGA	BGA T&R
74LVTH162240	16-Bit Inverting Buffer/Line Driver w/3-STATE Outputs and 25 Ohm Series Resistors in	48							MTD	MTX	MEA	MEX		
74LVTH162244	16-Bit Buffer/Line Driver w/3-STATE Outputs and 25 Ohm Series Resistors in the Output	48/54							MTD	MTX	MEA	MEX	G	GX
74LVTH162245	16-Bit Transceiver w/3-STATE Outputs and 25 Ohm Series Resistors in A Port Outputs	48/54							MTD	MTX	MEA	MEX	G	GX
74LVTH162373	16-Bit Transparent Latch w/3-STATE Outputs	48							MTD	MTX	MEA	MEX		
74LVTH162374	16-Bit D-Type Flip-Flop w/3-STATE Outputs and 25 Ohm Series Resistors in the Outputs	48							MTD	MTX	MEA	MEX		
74LVTH32245	Low Voltage 32-Bit Transceiver w/3-STATE Outputs and 25 Ohm Series Resistors in A Port Outputs	96											G	GX
74LVTH322373	Low Voltage 32-Bit Transparent Latch w/3-STATE Outputs and 25 Ohm Series Resistors in the Outputs	96											G	GX
74LVTH322245	Low Voltage 32-Bit Transceiver w/3-STATE Outputs	96											G	GX

### 74LVXxx – CROSSVOLT™ LVX Low Voltage Logic

Low-cost *CROSSVOLT* LVX offers similar speed performance as Fairchild's 5V VHC logic, while also accepting input voltages up to 7V. This allows this family to interface with 5V systems. LVX is a low cost family designed to enable interoperability between 3.3V and 5V systems. LVX is intended for signaling and routing applications and offers a full portfolio of gates, MSI, and octal functions. Due to its low dynamic power dissipation, low noise, and moderate speed, LVX is ideal in 3.3V battery-powered systems.

FUNCTION	Description	Lead	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	QSOP	QSOP T&R	SSOP	SSOP T&R
74LVX00	Quad 2-Input NAND Gate	14	SJ	SJX	M	MX			MTC	MTCX				
74LVX02	Quad 2-Input NOR Gate	14			M	MX			MTC	MTCX				
74LVX04	Hex Inverter	14	SJ	SJX	M	MX			MTC	MTCX				
74LVX08	Quad 2-Input AND Gate	14	SJ	SJX	M	MX			MTC	MTCX				
74LVX14	Hex Inverter w/Schmitt Trigger Input	14	SJ	SJX	M	MX			MTC	MTCX				
74LVX32	Quad 2-Input OR Gate	14	SJ	SJX	M	MX			MTC	MTCX				
74LVX74	Dual D-Type Positive Edge-Triggered Flip-Flop	14	SJ	SJX	M	MX			MTC	MTCX				
74LVX86	Quad 2-Input Exclusive-OR Gate	14	SJ	SJX	M	MX			MTC	MTCX				
74LVX112	Dual JK Flip-Flops w/Preset and Clear	16	SJ	SJX	M	MX			MTC	MTCX				
74LVX125	Quad Buffer w/3-STATE Outputs	14	SJ	SJX	M	MX			MTC	MTCX				
74LVX132	Quad 2-Input NAND Schmitt Trigger	14	SJ	SJX	M	MX			MTC	MTCX				
74LVX138	1-of-8 Decoder/Demultiplexer	16	SJ	SJX	M	MX			MTC	MTCX				
74LVX157	Quad 2-Input Multiplexer	16	SJ	SJX	M	MX			MTC	MTCX				
74LVX163	Synchronous Binary Counter w/Synchronous Clear	16	SJ	SJX	M	MX			MTC	MTCX				
74LVX174	Hex D-Type Flip-Flop w/Master Reset	16	SJ	SJX	M	MX			MTC	MTCX				
74LVX240	Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			M	MX	MTC	MTCX				
74LVX244	Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			M	MX	MTC	MTCX				
74LVX245	Octal Bidirectional Transceiver	20	SJ	SJX			M	MX	MTC	MTCX				
74LVX273	Octal D-Type Flip-Flop	20	SJ	SJX			M	MX	MTC	MTCX				
74LVX373	Octal Transparent Latch w/3-STATE Outputs	20	SJ	SJX			M	MX	MTC	MTCX				
74LVX374	Octal D-Type Flip-Flop w/3-STATE Outputs	20	SJ	SJX			M	MX	MTC	MTCX				
74LVX541	Octal Buffer/Line Driver w/3-STATE Outputs	20	SJ	SJX			M	MX	MTC	MTCX				
74LVX573	Octal Latch w/3-STATE Outputs	20	SJ	SJX			M	MX	MTC	MTCX				
74LVX574	Octal D-Type Flip-Flop w/3-STATE Outputs	20	SJ	SJX			M	MX	MTC	MTCX				
74LVX3245	8-Bit Dual Supply Translating Transceiver w/3-STATE Outputs	24					WM	WMX	MTC	MTCX	QSC	QSCX		
74LVX4245	8-Bit Dual Supply Translating Transceiver w/3-STATE Outputs	24					WM	WMX	MTC	MTCX	QSC	QSCX		
74LVX161284	IEEE 161284 Translating Transceiver	48							MTD	MTDX			MEA	MEAX
74LVX161284A	IEEE 161284 Translating Transceiver	48							MTD	MTX				
74LVXC3245	8-Bit Dual Supply Configurable Voltage Interface Transceiver w/3-STATE Outputs	24					WM	WMX	MTC	MTCX	QSC	QSCX		
74LVXC4245	8-Bit Dual Supply Configurable Voltage Interface Transceiver w/3-STATE Outputs	24					WM	WMX	MTC	MTCX	QSC	QSCX		
74LVXZ161284	Low Voltage IEEE 161284 Translating Transceiver w/ Power-Up Protection	48							MTD	MTX			MEA	MEX

**74VCXxxx – CROSSVOLT™ VCX™ Low Voltage Logic**

Fairchild's *CROSSVOLT* VCX low voltage logic is the industry's first low voltage family that is optimized for 2.5V performance. VCX offers extremely high speed and is specified at 3.3V, 2.5V, and 1.8V. Manufactured on a high-performance CMOS process, VCX provides input and output over-voltage tolerance, low CMOS power consumption, and balanced high drive.

FUNCTION	Description - some of the titles have been truncated	Leads/ Balls	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	BGA	BGA T&R
74VCX00	Quad 2-Input NAND Gate w/3.6V Tolerant Inputs and Outputs	14	M	MX			MTC	MTCX		
74VCX08	Quad 2-Input AND Gate w/3.6V Tolerant Inputs and Outputs	14	M	MX			MTC	MTCX		
74VCX32	Quad 2-Input OR Gate w/3.6V Tolerant Inputs and Outputs	14	M	MX			MTC	MTCX		
74VCX38	Quad 2-Input NAND Gate w/Open Drain Outputs and 3.6V Tolerant Inputs and Outputs	14	M	MX			MTC	MTCX		
74VCX86	Quad 2-Input Exclusive-OR Gate w/3.6V Tolerant Inputs and Outputs	14	M	MX			MTC	MTCX		
74VCX132	Quad 2-Input NAND Gate w/Schmitt Trigger Inputs and 3.6V Tolerant Inputs and Outputs	14	M	MX			MTC	MTCX		
74VCX245	Bidirectional Transceiver w/3.6V Tolerant Inputs and Outputs	20			WM	WMX	MTC	MTCX		
74VCX2245	Bidirectional Transceiver w/3.6V Tolerant Inputs and Outputs and 26 Ohm Series Resist	20			WM	WMX	MTC	MTCX		
74VCX16240	16-Bit Inverting Buffer/Line Driver w/3.6V Tolerant Inputs and Outputs	48					MTD	MTDX		
74VCX16244	16-Bit Buffer/Line Driver w/3.6V Tolerant Inputs and Outputs	48/54					MTD	MTDX	G	GX
74VCX16245	16-Bit Bidirectional Transceiver w/3.6V Tolerant Inputs and Outputs	48					MTD	MTDX	G	GX
74VCX16373	16-Bit Transparent Latch w/3.6V Tolerant Inputs and Outputs	48					MTD	MTDX		
74VCX16374	16-Bit D-Type Flip-Flop w/3.6V Tolerant Inputs and Outputs	48/54					MTD	MTDX		GX
74VCX16374G										
74VCX16500	18-Bit Universal Bus Transceivers w/3.6V Tolerant Inputs and Outputs	56					MTD	MTDX		
74VCX16501	18-Bit Universal Bus Transceivers w/3.6V Tolerant Inputs and Outputs	56					MTD	MTDX		
74VCX16601	18-Bit Universal Bus Transceivers w/3.6V Tolerant Inputs and Outputs	56					MTD	MTDX		
74VCX16721	20-Bit D-Type Flip-Flops w/3.6V Tolerant Inputs and Outputs	56					MTD	MTDX		
74VCX16722	22-Bit Register w/3.6V Tolerant Inputs and Outputs	64					MTD	MTDX		
74VCX16821	20-Bit D-Type Flip-Flops w/3.6V Tolerant Inputs and Outputs	56					MTD	MTDX		
74VCX16827	20-Bit Buffer/Line Driver w/3.6V Tolerant Inputs and Outputs	56					MTD	MTDX		
74VCX16835	18-Bit Universal Bus Driver w/3.6V Tolerant Inputs and Outputs	56					MTD	MTDX		
74VCX16838	16-Bit Selectable Register/Buffer w/3.6V Tolerant Inputs and Outputs	48					MTD	MTDX		
74VCX16839	20-Bit Selectable Register/Buffer w/3.6V Tolerant Inputs and Outputs	56					MTD	MTDX		
74VCX16841	20-Bit Transparent Latch w/3.6V Tolerant Inputs and Outputs	56					MTD	MTDX		
74VCX32244	32-Bit Buffer/Line Driver w/3.6V Tolerant Inputs and Outputs	96							G	GX
74VCX32374	32-Bit D-Type Flip-Flop w/3.6V Tolerant Inputs and Outputs	96							G	GX
74VCX32500	36-Bit Universal Bus Transceivers w/3.6V Tolerant Inputs and Outputs	114							G	GX
74VCX162240	16-Bit Inverting Buffer/Line Driver w/3.6V Tolerant Inputs and Outputs and 26 Ohm Series Resistors in Outputs	48					MTD	MTDX		
74VCX162244	16-Bit Buffer/Line Driver w/3.6V Tolerant Inputs and Outputs and 26 Ohm Series Resistors in Outputs	48/54					MTD	MTDX	G	GX
74VCX162245	16-Bit Bidirectional Transceiver w/3.6V Tolerant Inputs and Outputs and 26 Ohm Series Resistors in Outputs	48					MTD	MTDX		
74VCX162373	16-Bit Transparent Latch w/3.6V Tolerant Inputs and Outputs and 26 Ohm Series Resistors in Outputs	48					MTD	MTDX		
74VCX162374	16-Bit D-Type Flip-Flop w/3.6V Tolerant Inputs and Outputs and 26 Ohm Series Resistors in Outputs	48					MTD	MTDX		
74VCX162601	18-Bit Universal Bus Transceivers w/3.6V Tolerant Inputs and Outputs and 26 Ohm Series Resistors in Outputs	56					MTD	MTDX		
74VCX162827	20-Bit Buffer/Line Driver w/3.6V Tolerant Inputs and Outputs and 26 Ohm Series Resistors in Outputs	56					MTD	MTDX		
74VCX162835	18-Bit Universal Bus Driver w/3.6V Tolerant Inputs/Outputs and 26 Ohm Series Resistors in Outputs	56					MTD	MTDX		
74VCX162838	16-Bit Selectable Register/Buffer w/3.6V Tolerant Inputs and Outputs and 26 Ohm Series Resistors in Outputs	48					MTD	MTDX		
74VCX162839	20-Bit Selectable Register/Buffer w/3.6V Tolerant Inputs and Outputs and 26 Ohm Series Resistors in Outputs	56					MTD	MTDX		
74VCX163245	16-Bit Dual Supply Translating Transceiver w/3-STATE Outputs	48					MTD	MTDX		
74VCX164245	16-Bit Dual Supply Translating Transceiver w/3-STATE Outputs	48/54					MTD	MTDX	G	GX
74VCXF162835	18-Bit Universal Bus Driver w/3.6V Tolerant Outputs and 26 Ohm Series Resistors in Outputs	56					MTD	MTX		

## Alpha-Numeric Product Listing

### 74VCXxxx – CROSSVOLT™ VCX™ Low Voltage Logic (cont.)

FUNCTION	Description - some of the titles have been truncated	Leads/ Balls	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	BGA	BGA T&R
74VCXH245	Bidirectional Transceiver w/Bushold	20			WM	WMX	MTC	MTCX		
74VCXH2245	Bidirectional Transceiver w/Bushold and 26 Ohm Series Resistors in B Outputs	20			WM	WMX	MTC	MTCX		
74VCXH16240	16-Bit Inverting Buffer/Line Driver w/Bushold	48					MTD	MTDX		
74VCXH16244	16-Bit Buffer/Line Driver w/Bushold	48					MTD	MTDX		
74VCXH16373	16-Bit Transparent Latch w/Bushold	48					MTD	MTDX		
74VCXH16374	16-Bit D-Type Flip-Flop w/Bushold	48					MTD	MTDX		
74VCXH162240	16-Bit Inverting Buffer/Line Driver w/Bushold and 26 Ohm Series Resistors in Outputs	48					MTD	MTX		
74VCXH162244	16-Bit Buffer/Line Driver w/Bushold and 26 Ohm Series Resistor in Outputs	48					MTD	MTX		
74VCXH162373	16-Bit Transparent Latch w/Bushold and 26 Ohm Series Resistors in Outputs	48					MTD	MTX		
74VCXH162374	16-Bit D-Type Flip-Flop w/Bushold and 26 Ohm Series Resistors in Outputs	48					MTD	MTX		
74VCXR162601	18-Bit Universal Bus Transceivers w/3.6V Tolerant Inputs and Outputs and 26 Ohm Series Resistors in Outputs	56					MTD	MTX		

### 74VHCxxx – VHC CMOS Logic

VHC logic is an enhanced version to the industry's most popular CMOS family — High-Speed CMOS (HC/HCT). VHC is the logical upgrade from HC and is ideal where the full drive of CMOS FACT is not needed. VHC logic offers all the advantages of HCMOS with the addition of higher drive and lower propagation delays (e.g., faster) with no noise penalty. Fairchild's VHC series offers standard logic functions with CMOS-compatible inputs and TTL- and MOS-compatible outputs.

FUNCTION	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T&R
74VHC00	Quad 2-Input NAND Gate	14	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC02	Quad 2-Input NOR Gate	14	N			M	MX			MTC	MTCX		
74VHC04	Hex Inverter	14	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC04	Hex Inverter	14	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC08	Quad 2-Input AND Gate	14	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC14	Hex Schmitt Inverter	14	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC27	Triple 3-Input NOR Gate	14	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC32	Quad 2-Input OR Gate	14	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC74	Dual D-Type Flip-Flop w/Preset and Clear	14	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC86	Quad 2-Input Exclusive-OR Gate	14	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC112	Dual J-K Flip-Flops w/Preset and Clear	16	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC123A	Dual Retriggerable Monostable Multivibrator	16	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC125	Quad Buffer w/3-STATE Outputs	14	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC132	Quad 2-Input NAND Schmitt Trigger	14	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC138	3-to-8 Decoder/Demultiplexer	16	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC139	Dual 2-to-4 Decoder/Demultiplexer	16	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC153	Dual 4-Input Multiplexer	16	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC157	Quad 2-Input Multiplexer	16	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC161	4-Bit Binary Counter w/Asynchronous Clear	16	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC163	4-Bit Binary Counter w/Synchronous Clear	16	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC164	8-Bit Serial-In Parallel-Out Shift Register	14	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC175	Quad D-Type Flip-Flop	16	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC221A	Dual Non-Retriggerable Monostable Multivibrator	16	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC240	Octal Buffer/Line Driver w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX		
74VHC244	Octal Buffer/Line Driver w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX		
74VHC245	Octal Bidirectional Transceiver w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX		
74VHC273	Octal D-Type Flip-Flop	20	N	SJ	SJX			M	MX	MTC	MTCX		
74VHC373	Octal D-Type Latch w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX		
74VHC374	Octal D-Type Flip-Flop w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX		
74VHC393	Dual 4-Bit Binary Counter	14	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC541	Octal Buffer/Line Driver w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX		
74VHC573	Octal D-Type Latch w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX		
74VHC574	Octal D-Type Flip-Flop w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX		
74VHC595	8-Bit Shift Register w/Output Latches	16	N	SJ	SJX	M	MX			MTC	MTCX		
74VHC4040	12-Stage Binary Counter	16	N			M	MX			MTC	MTCX		
74VHC4046	CMOS Phase Lock Loop	16	N			M	MX			MTC	MTCX		
74VHC4051	8-Channel Analog Multiplexer	16	N			M	MX	WM	WMX	MTC	MTCX		
74VHC4052	Dual 4-Channel Analog Multiplexer	16	N			M	MX	WM	WMX	MTC	MTCX		
74VHC4053	Triple 2-Channel Analog Multiplexer	16	N			M	MX	WM	WMX	MTC	MTCX		
74VHC4066	Quad Analog Switch	14	N			M	MX			MTC	MTCX		
74VHC4316	Quad Analog Switch w/Level Translator	16	N			M	MX	WM	WMX	MTC	MTCX		
74VHC161284	IEEE 161284 Transceiver	48								MTD	MTDX	MEA	MEAX

## 74VHCTxxx – VHCT CMOS Logic

VHCT logic is an enhanced version to the industry's most popular CMOS family — High-Speed CMOS (HC/HCT). VHCT is the logical upgrade from HC and is ideal where the full drive of CMOS FACT is not needed. VHCT logic offers all the advantages of HCMOS with the addition of higher drive and lower propagation delays (e.g., faster) with no noise penalty. Fairchild's VHCT series offers standard logic functions with TTL-compatible inputs and TTL- and MOS-compatible outputs.

FUNCTION	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R
74VHCT00A	Quad 2-Input NAND Gate	14	N	SJ	SJX	M	MX			MTC	MTCX
74VHCT04A	Hex Inverter	14	N	SJ	SJX	M	MX			MTC	MTCX
74VHCT08A	Quad 2-Input AND Gate	14	N	SJ	SJX	M	MX			MTC	MTCX
74VHCT14A	Hex Schmitt Inverter	14	N	SJ	SJX	M	MX			MTC	MTCX
74VHCT74A	Dual D-Type Flip-Flop w/Preset and Clear	14	N	SJ	SJX	M	MX			MTC	MTCX
74VHCT138A	3-to-8 Decoder/Demultiplexer	16	N	SJ	SJX	M	MX			MTC	MTCX
74VHCT240A	Octal Buffer/Line Driver w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX
74VHCT244A	Octal Buffer/Line Driver w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX
74VHCT245A	Octal Buffer/Line Driver w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX
74VHCT373A	Octal D-Type Latch w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX
74VHCT374A	Octal D-Type Flip-Flop w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX
74VHCT540A	Octal Buffer/Line Driver w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX
74VHCT541A	Octal Buffer/Line Driver w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX
74VHCT573A	Octal D-Type Latch w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX
74VHCT574A	Octal D-Type Flip-Flop w/3-STATE Outputs	20	N	SJ	SJX			M	MX	MTC	MTCX

## CD4xxx – CD4K CMOS Logic

CD4K logic allows power supply voltages up to 15V and rail output swings. In addition to being specified over a broad temperature range, CD4K products lend themselves to the industrial and automotive markets due to their ruggedness and high voltage operation.

FUNCTION	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R
CD4001BC	Quad 2-Input NOR Buffered B Series Gate	14	N	SJ	SJX	M	MX				
CD4007C	Dual Complementary Pair Plus Inverter	14	N			M	MX				
CD4010C	Hex Buffers (Non-Inverting)	16	N			M	MX				
CD4011BC	Quad 2-Input NAND Buffered B Series Gate	14	N	SJ	SJX	M	MX				
CD4013BC	Dual D-Type Flip-Flop	14	N	SJ	SJX	M	MX				
CD4014BC	8-Stage Static Shift Register	16	N			M	MX				
CD4015BC	Dual 4-Bit Static Shift Register	16	N			M	MX				
CD4016BC	Quad Bilateral Switch	14	N			M	MX				
CD4017BC	Decode Counter/Divider w/10 Decoded Outputs	16	N	SJ	SJX	M	MX				
CD4019BC	Quad AND-OR Select Gate	16	N			M	MX				
CD4020BC	14-Stage Ripple Carry Binary Counters	16	N			M	MX				
CD4021BC	8-Stage Static Shift Register	16	N			M	MX				
CD4022BC	Divide-by-8 Counter/Divide w/8 Decoded Outputs	16	N			M	MX				
CD4023BC	Buffered Triple 3-Input NAND Gate	14	N	SJ	SJX	M	MX				
CD4024BC	7-Stage Ripple Carry Binary Counter	14	N			M	MX				
CD4027BC	Dual J-K Master/Slave Flip-Flop w/Set and Reset	16	N			M	MX				
CD4028BC	BCD-to-Decimal Decoder	16	N			M	MX				
CD4029BC	Presetable Binary/Decade Up/Down Counter	16	N	SJ	SJX			WM	WMX		
CD4030C	Quad Exclusive-OR Gate	14	N	SJ	SJX						
CD4040BC	12-Stage Ripple Carry Binary Counters	16	N	SJ	SJX	M	MX				
CD4043BC	Quad 3-STATE NOR R/S Latches	16	N			M	MX				
CD4044BC	Quad 3-STATE NAND R/S Latches	16	N			M	MX				
CD4046BC	Micropower Phase-Locked Loop	16	N			M	MX				
CD4047BC	Low Power Monostable/Astable Multivibrator	14	N			M	MX				
CD4049UBC	Hex Inverting Buffer	16	N	SJ	SJX	M	MX				
CD4050BC	Hex Non-Inverting Buffer	16	N	SJ	SJX	M	MX				
CD4051BC	Single 8-Channel Analog Multiplexer/Demultiplexer	16	N	SJ	SJX	M	MX			MTC	MTCX
CD4052BC	Dual 4-Channel Analog Multiplexer/Demultiplexer	16	N	SJ	SJX	M	MX				
CD4053BC	Triple 2-Channel Analog Multiplexer/Demultiplexer	16	N	SJ	SJX	M	MX				
CD4060BC	14-Stage Ripple Carry Binary Counters	16	N			M	MX				
CD4066BC	Quad Bilateral Switch	14	N	SJ	SJX	M	MX				
CD4069UBC	Inverter Circuits	14	N	SJ	SJX	M	MX				

## Alpha-Numeric Product Listing

### CD4xxx – CD4K CMOS Logic (cont.)

FUNCTION	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R
CD4070BC	Quad 2-Input Exclusive-OR Gate	14	N			M	MX				
CD4071BC	Quad 2-Input OR/AND Buffered B Series Gate	14	N			M	MX				
CD4081BC	Quad 2-Input OR/AND Buffered B Series Gate	14	N			M	MX				
CD4093BC	Quad 2-Input NAND Schmitt Trigger	14	N			M	MX				
CD4094BC	8-Bit Shift Register/Latch w/3-STATE Outputs	16	N					WM	WMX		
CD4099BC	8-Bit Addressable Latch	16	N								
CD4503BC	Hex Non-Inverting 3-STATE Buffer	16	N			M	MX				
CD4511BC	BCD-to-7 Segment Latch/Decoder/Driver	16	N					WM	WMX		
CD4512BC	8-Channel Buffered Data Selector	16	N			M	MX				
CD4514BC	4-Bit Latched/4-to-16 Line Decoders	24	N					WM	WMX		
CD4515BC	4-Bit Latched/4-to-16 Line Decoders	24	N					WM	WMX		
CD4528BC	Dual Monostable Multivibrator	16	N			M	MX				
CD4538BC	Dual Precision Monostable	16	N			M	MX	WM	WMX		
CD4541BC	Programmable Timer	14	N			M	MX				
CD4724BC	Dual 8-Bit Addressable Latch	16	N			M	MX				
CD40106BC	Hex Schmitt Trigger	14	N			M	MX				
CD40174BC	Hex D-Type Flip-Flop	16	N			M	MX				
CD40175BC	Quad D-Type Flip-Flop	16	N			M	MX				
CD40192BC	Synchronous 4-Bit Up/Down Decade Counter	16	N								
CD40193BC	Synchronous 4-Bit Up/Down Binary Counter	16	N			M	MX				

### CGSxxx – Clock Generation & Support Products

These Fairchild devices are designed for Clock Generation and Support (CGS) applications up to 110MHz. The CGS33xx series of devices are crystal-controlled CMOS oscillators which require a minimum of external components. These CGS33xx devices select output divide ratio (and selectable crystal drive level).

FUNCTION	Description	Lead	SOIC	SOIC T&R	TQFP	TQFP T&R
CGS3311	CMOS Crystal Clock Generators	8	M	MX		
CGS3312	CMOS Crystal Clock Generators	8	M	MX		
CGS3313	CMOS Crystal Clock Generators	8	M	MX		
CGS3314	CMOS Crystal Clock Generators	8	M	MX		
CGS3315	CMOS Crystal Clock Generators	8	M	MX		
CGS3316	CMOS Crystal Clock Generators	8	M	MX		
CGS3317	CMOS Crystal Clock Generators	8	M	MX		
CGS3318	CMOS Crystal Clock Generators	8	M	MX		
CGS3319	CMOS Crystal Clock Generators	8	M	MX		
CGS3321	CMOS Crystal Clock Generators	8	M	MX		
CGS3322	CMOS Crystal Clock Generators	8	M	MX		
FC940L	Low Voltage 1 to 18 Clock Distribution Device with Selectable PECL or LVTTTL Input	32			VB	VBX

### DM74xxx, DM93xxx, DM96xxx – TTL Bipolar Logic

TTL was one of the earliest logic families to be introduced to the market (1968) and set the standard for future families. Due to the position of this family in the product life cycle, it is not recommended for new designs. However, this product family is still being supported.

FUNCTION	Description	Lead	DIP	SOP	SOIC	SOIC T&R
7438	Quad 2-Input NAND Buffer w/OC Outputs	14		SJ		
DM7400	Quad 2-Input NAND Gate	14	N		M	
DM7402	Quad 2-Input NOR Gate	14	N			
DM7403	Quad 2-Input NAND Gates w/OC Output	14	N			
DM7404	Hex Inverter	14	N		M	MX
DM7405	Hex Inverter w/OC Outputs	14	N			
DM7406	Hex Inverting Buffer/Driver w/High-Voltage OC Outputs	14	N		M	MX
DM7407	Hex Buffer/Driver w/High-Voltage OC Outputs	14	N		M	MX
DM7408	Quad 2-Input AND Gate	14	N			
DM7414	Hex Inverter w/Schmitt Trigger Input	14	N			
DM7416	Hex Inverting Buffer/Driver w/High-Voltage OC Outputs	14	N			
DM7417	Hex Buffer/Driver w/High-Voltage OC Outputs	14	N		M	MX
DM7420	Dual 4-Input NAND Gate	14	N			



## DM74xxx, DM93xxx, DM96xxx – TTL Bipolar Logic (cont.)

FUNCTION	Description	Lead	DIP	SOP	SOIC	SOIC T&R
DM7426	Quad 2-Input NAND Buffer w/High-Voltage OC Outputs	14	N			
DM7438	Quad 2-Input NAND Buffer w/OC Outputs	14	N		M	MX
DM7442A	BCD to Decimal Decoder	16	N			
DM7445	BCD to Decimal Decoder/Driver	16	N			
DM7446A	BCD to 7-Segment Decoder/Driver w/OC Outputs	16	N			
DM7447A	BCD to 7-Segment Decoder/Driver w/OC Outputs	16	N			
DM7473	Dual Positive-Edge-Triggered Master-Slave J-K Flip-Flop w/Clear	14	N			
DM7474	Dual Positive-Edge-Triggered D Flip-Flop w/Preset Clear	14	N		M	MX
DM7476	Dual J-K Flip-Flop w/Preset and Clear	16	N			
DM7486	Quad 2-Input Exclusive-OR Gate	14	N			
DM7490A	Decade and Binary Counter	14	N			
DM74121	One-Shot w/Clear and Complementary Outputs	14	N			
DM74123	Dual Retriggerable One-Shot w/Clear and Complementary Outputs	16	N			
DM74145	BCD to Decimal Decoder/Driver	16	N			
DM74150	Data Selector/Multiplexer	24	N			
DM74157	Quad 2-Line to 1-Line Data Selector/Multiplexer	16	N			
DM74164	8-Bit Serial In/Parallel Out Shift Register w/Asynchronous Clear	14	N			
DM74174	Hex D-Type Flip-Flop w/Clear	16	N			
DM9324	5-Bit Comparator	16	N			
DM9328	Dual 8-Bit Shift Register	16	N			
DM9334	8-Bit Addressable Latch	16	N			
DM9368	7-Segment Decoder/Driver/Latch w/Constant Current Source Outputs	16	N			
DM9370	7-Segment Decoder/Driver/Latch w/OC Outputs	16	N			
DM9374	7-Segment Decoder/Driver/Latch w/Constant Current Sink Outputs	16	N			
DM93L14	Quad Latch	16	N			
DM93L28	Dual 8-Bit Shift Register	16	N			
DM93L38	8-Bit Multiple Port Register	16	N			
DM9602	Dual Retriggerable Resettable One Shots	16	N			
DM96L02	Dual Retriggerable Resettable Monostable Multivibrator	16	N			

## DM74ALSxxx – ALS Bipolar Logic

ALS (Advanced Low Power Schottky) logic delivers twice the data handling efficiency with up to 50% reduction in power consumption as compared with LS, making it the lowest power advanced TTL family.

FUNCTION	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC-Wide	SOIC-Wide T&R	SSOP	SSOP T&R
DM74ALS00A	Quad 2-Input NAND Gates	14	N	SJ	SJX	M	MX				
DM74ALS02	Quad 2-Input NOR Gates	14	N			M	MX				
DM74ALS03B	Quad 2-Input NAND Gates w/Open Collector Outputs	14	N			M	MX				
DM74ALS04B	Hex Inverters	14	N	SJ	SJX	M	MX				
DM74ALS05A	Hex Inverters w/Open Collector Outputs	14	N			M	MX				
DM74ALS08	Quad 2-Input AND Gate	14	N	SJ	SJX	M	MX				
DM74ALS09	Quad 2-Input AND Gates w/Open Collector Outputs	14	N			M	MX				
DM74ALS10A	Triple 3-Input NAND Gates	14	N	SJ	SJX	M	MX				
DM74ALS11A	Triple 3-Input AND Gates	14	N			M	MX				
DM74ALS14	Hex Inverter w/Schmitt Trigger Inputs	14	N	SJ	SJX	M	MX				
DM74ALS20A	Dual 4-Input NAND Gates	14	N			M	MX				
DM74ALS21A	Dual 4-Input AND Gates	14	N			M	MX				
DM74ALS27	Triple 3-Input NOR Gates	14	N			M	MX				
DM74ALS30A	8 Input NAND Gates	14	N	SJ	SJX	M	MX				
DM74ALS32	Quad 2-Input OR Gate	14	N	SJ	SJX	M	MX				
DM74ALS37A	Quadruple 2-Input NAND Buffers	14	N			M	MX				
DM74ALS38A	Quadruple 2-Input NAND Buffers w/Open-Collector Outputs	14	N			M	MX				
DM74ALS74A	Dual D Positive-Edge-Triggered Flip-Flops w/Preset and Clear	14	N	SJ	SJX	M	MX				
DM74ALS86	Quad 2-Input Exclusive-OR Gate	14	N			M	MX				
DM74ALS109A	Dual J-K Positive-Edge-Triggered Flip-Flop w/Preset and Clear	16	N			M	MX				
DM74ALS125	Quad 3-STATE Buffer	14	N			M	MX				
DM74ALS133	13-Input NAND Gate	16	N			M	MX				
DM74ALS137	3-Line to 8-Line Decoder/Demultiplexer w/Address Latches	16	N			M	MX				
DM74ALS138	3 to 8 Line Decoder/Demultiplexer	16	N	SJ	SJX	M	MX				
DM74ALS151	1 of 8 Line Data Selector/Multiplexer	16	N			M	MX				
DM74ALS153	Dual 1-of-4 Line Data Selector/Multiplexer	16	N	SJ	SJX	M	MX				
DM74ALS157	Quad 1 of 2 Line Data Selector/Multiplexers	16	N	SJ	SJX	M	MX				

## Alpha-Numeric Product Listing

### DM74ALSxxx – ALS Bipolar Logic (cont.)

FUNCTION	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	SSOP	SSOP T&R
DM74ALS158	Quad 1 of 2 Line Data Selector/Multiplexers	16	N								
DM74ALS161B	Synchronous Four-Bit Binary Counter w/Asynchronous Clear	16	N			M	MX				
DM74ALS162B	Synchronous Four-Bit Decade Counter w/Synchronous Clear	16	N			M	MX				
DM74ALS163B	Synchronous Four-Bit Binary Counter w/Synchronous Clear	16	N			M	MX				
DM74ALS165	8-Bit Parallel In/Serial Out Shift Register	16	N			M	MX				
DM74ALS169B	Synchronous Four-Bit Up/Down Counters	16	N			M	MX				
DM74ALS174	Hex/Quad D Flip-Flops w/a Synchronous Clear Input	16	N	SJ	SJX	M	MX				
DM74ALS175	Hex/Quad D Flip-Flops w/Clear and Complementary Outputs	16	N	SJ	SJX	M	MX				
DM74ALS240A	Octal 3-STATE Bus Driver	20	N	SJ	SJX			WM	WMX		
DM74ALS241A	Octal 3-STATE Bus Driver	20	N					WM	WMX		
DM74ALS244A	Octal 3-STATE Bus Driver	20	N	SJ	SJX			WM	WMX	MSA	MSAX
DM74ALS245A	Octal 3-STATE Bus Transceiver	20	N	SJ	SJX			WM	WMX	MSA	MSAX
DM74ALS251	3-STATE 1 of 8 Line Data Selector/Multiplexer	16	N	SJ	SJX	M	MX				
DM74ALS253	3-STATE Dual 1 of 4 Line Data Selector/Multiplexer	16	N			M	MX				
DM74ALS257	3-STATE Quad 1-of-2 Line Data Selector/Multiplexer	16	N	SJ	SJX	M	MX				
DM74ALS258	3-STATE Quad 1-of-2 Line Data Selector/Multiplexer (Inverting)	16	N			M	MX				
DM74ALS273	Octal D-Type Edge-Triggered Flip-Flops w/Clear Inputs	20	N	SJ	SJX			WM	WMX	MSA	MSAX
DM74ALS373	Octal D-Type 3-STATE Transparent Latches	20	N	SJ	SJX			WM	WMX		
DM74ALS374	Octal 3-STATE D-Type-Edge-Triggered Flip-Flops	20	N	SJ	SJX			WM	WMX		
DM74ALS520	8-Bit Comparator	20	N					WM	WMX		
DM74ALS521	8-Bit Comparator	20	N					WM	WMX		
DM74ALS533	Octal D-Type Transparent Latches w/3-STATE Outputs	20	N					WM	WMX		
DM74ALS534	Octal D-Type Edge-Triggered Flip-Flop w/3-STATE Outputs	20	N					WM	WMX		
DM74ALS540A	Octal Inverting Buffers and Line Drivers w/3-STATE Outputs	20	N	SJ	SJX			WM	WMX		
DM74ALS541	Octal Buffers and Line Drivers w/3-STATE Outputs	20	N	SJ	SJX			WM	WMX		
DM74ALS563A	Octal D-Type Transparent Latch w/3-STATE Output	20	N					WM	WMX		
DM74ALS564A	Octal D-Type Edge Triggered Flip-Flop w/3-STATE Outputs	20	N					WM	WMX		
DM74ALS573B	Extended Temperature Octal D-Type Transparent Latch w/3-STATE Outputs	20	N	SJ	SJX			WM	WMX		
DM74ALS574A	Octal D-Type Edge Triggered Flip-Flop w/3-STATE Outputs	20	N	SJ	SJX			WM	WMX		
DM74ALS576A	Octal D-Type Edge-Triggered Flip-Flops w/3-STATE Outputs	20	N					WM	WMX		
DM74ALS580A	Octal D-Type Transparent Latch w/3-STATE Outputs	20	N					WM	WMX		
DM74ALS640A	Inverting Octal Bus Transceiver	20	N					WM	WMX		
DM74ALS645A	Octal Bus Transceivers	20	N					WM	WMX		
DM74ALS646	Octal 3-STATE Bus Transceiver and Register	24	NT					WM	WMX		
DM74ALS652	Octal 3-STATE Bus Transceiver and Register	24	NT					WM	WMX		
DM74ALS804A	Hex 2-Input NAND Driver	20	N					WM	WMX		
DM74ALS874B	Dual 4-Bit D-Type Edge-Triggered Flip-Flop w/3-STATE Outputs	24	NT					WM	WMX		
DM74ALS1000A	Quadruple 2-Input NAND Buffer	14	N			M	MX				
DM74ALS1004	Hex Inverting Driver	14	N			M	MX				
DM74ALS1005	Hex Inverting Driver w/Open Collector Outputs	14	N			M	MX				
DM74ALS1008A	Quadruple 2-Input AND Buffer	14	N			M	MX				
DM74ALS1032A	Quadruple 2-Input OR Buffer	14	N				MX				
DM74ALS1034	Hex Non-Inverting Driver	14	N			M	MX				
DM74ALS1035	Hex Non-Inverting Driver w/Open Collector Outputs	14	N			M	MX				
DM74ALS5245	Octal 3-STATE Transceiver	20	N	SJ	SJX			WM	WMX		



## DM74ASxxx – AS Bipolar Logic

AS (Advanced Schottky) logic meets the needs of system designers who require fast speeds. Typical AS propagation delays are 4ns. Only FASTr and ECL offer higher bipolar speeds. Due to the position of this family in the product life cycle, this family is not recommended for new designs. However, Fairchild still supports this product family.

FUNCTION	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R
DM74AS00	Quad 2-Input NAND Gate	14	N			M	MX		
DM74AS04	Hex Inverter	14	N	SJ	SJX	M	MX		
DM74AS08	Quad 2-Input AND Gate	14	N			M	MX		
DM74AS10	Triple 3-Input NAND Gate	14	N			M	MX		
DM74AS21	Dual 4-Input AND Gate	14	N			M	MX		
DM74AS27	Triple 3-Input NOR Gate	14	N			M	MX		
DM74AS30	8 Input NAND Gate	14	N			M	MX		
DM74AS32	Quad 2-Input OR Gate	14	N	SJ	SJX	M	MX		
DM74AS34	Hex Non-Inverter	14	N						
DM74AS74	Dual D Positive-Edge-Triggered Flip-Flop w/ Preset and Clear	14	N	SJ	SJX	M	MX		
DM74AS157	Quad 2-Line to 1-Line Data Selector/Multiplexer	16	N	SJ	SJX	M	MX		
DM74AS158	Quad 2-Line to 1-Line Data Selector/Multiplexer	16	N			M	MX		
DM74AS161	Synchronous 4-Bit Binary Counter w/ Asynchronous Clear	16	N			M			
DM74AS163	Synchronous 4-Bit Binary Counter w/ Asynchronous Clear	16	N			M	MX		
DM74AS169A	Synchronous 4-Bit Binary Up/Down Counter	16	N			M	MX		
DM74AS240	Octal 3-STATE Inverting Buffer/Line Drivers/Line Receiver	20	N					WM	WMX
DM74AS244	Octal 3-STATE Inverting Buffer/Line Drivers/Line Receiver	20	N	SJ	SJX			WM	WMX
DM74AS245	Octal 3-STATE Bus Transceivers	20	N	SJ	SJX			WM	WMX
DM74AS257	3-STATE Quad 1 of 2 Line Data Selectors/Multiplexers	16	N	SJ	SJX	M	MX		
DM74AS258	3-STATE Quad 1 of 2 Line Inverting Data Selectors/Multiplexers	16	N			M	MX		
DM74AS280	9-Bit Parity Generator/Checker	14	N			M	MX		
DM74AS286	9-Bit Parity Generator/Checker w/ Bus-Driver Parity I/O Port	14				M	MX		
DM74AS373	Octal D-Type Transparent Latch w/ 3-STATE Outputs	20	N					WM	WMX
DM74AS374	Octal D-Type-Edge-Triggered Flip-Flops w/ 3-STATE Outputs	20	N					WM	WMX
DM74AS573	Octal D-Type Transparent Latch w/ 3-STATE Outputs	20	N					WM	WMX
DM74AS574	Octal D-Type Edge Triggered Flip-Flops w/ 3-STATE Outputs	20	N					WM	WMX
DM74AS640	Octal 3-STATE Octal Bus Transceiver	20	N					WM	WMX
DM74AS646	Octal 3-STATE Bus Transceiver Register	24	NT					WM	WMX
DM74AS648	Octal 3-STATE Inverting Bus Transceiver Register	24	NT					WM	WMX
DM74AS651	Octal Bus Transceiver and Register	24	NT					WM	WMX
DM74AS652	Octal Bus Transceiver and Register	24	NT					WM	WMX
DM74AS804B	Hex 2 Input NAND Driver	20	N					WM	WMX
DM74AS805B	Hex 2-Input NOR Driver	20	N					WM	
DM74AS873	Dual 4-Bit D-Type Transparent Latches w/ 3-STATE Output	24	NT						
DM74AS874	Dual 4-Bit D-Type Edge-Triggered Flip-Flops	24	NT					WM	WMX
DM74AS1000A	Quadruple 2 Input NAND Driver	14	N			M	MX		
DM74AS1004A	Hex Inverting Driver	14	N			M	MX		
DM74AS1032A	Quadruple 2-Input OR Driver	14	N			M	MX		
DM74AS1034A	Hex Non-Inverting Drivers	14	N			M	MX		
DM74AS1804	Hex 2-Input NAND Driver	20	N					WM	WMX
DM74AS1805	Hex 2-Input NOR Driver	20	N						WMX

## Alpha-Numeric Product Listing

### DM74LSxxx, DM81LSxxx, DM96LSxxxx – Low Power Schottky (LS) Bipolar Logic

Low Power Schottky (LS) was introduced in 1971 and offers a significant reduction in power as well as increases in speed over TTL. Due to the position of this family in the product life cycle, it is not recommended for new designs. However, this product family is still being supported.

FUNCTION	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R
DM74LS00	Quad 2-Input NAND Gate	14	N	SJ	SJX	M	MX		
DM74LS02	Quad 2-Input NOR Gate	14	N			M	MX		
DM74LS03	Quad 2-Input NAND Gate w/OC Outputs	14	N			M	MX		
DM74LS04	Hex Inverting Gates	14	N	SJ	SJX	M	MX		
DM74LS05	Hex Inverter w/OC Outputs	14	N	SJ	SJX	M	MX		
DM74LS08	Quad 2-Input AND Gate	14	N	SJ	SJX	M	MX		
DM74LS09	Quad 2-Input AND Gate w/OC Outputs	14	N			M	MX		
DM74LS10	Triple 3-Input NAND Gate	14	N			M	MX		
DM74LS11	Triple 3-Input AND Gate	14	N			M	MX		
DM74LS14	Hex Inverter w/Schmitt Trigger Inputs	14	N	SJ	SJX	M	MX		
DM74LS20	Dual 4-Input NAND Gate	14	N			M	MX		
DM74LS26	Quad 2-Input NAND Gate w/High Voltage OC Outputs	14	N			M	MX		
DM74LS27	Triple 3-Input NOR Gate	14	N			M	MX		
DM74LS28	Quad 2-Input NOR Buffer	14				M	MX		
DM74LS30	8-Input NAND Gate	14	N			M	MX		
DM74LS32	Quad 2-Input OR Gate	14	N	SJ	SJX	M	MX		
DM74LS33	Quad 2-Input NOR Buffer w/OC Outputs	14	N			M	MX		
DM74LS38	Quad 2-Input NAND Buffer w/OC Outputs	14	N	SJ	SJX	M	MX		
DM74LS47	BCD to 7-Segment Decoder/Driver	16	N			M	MX		
DM74LS51	Dual 2-Wide 2-Input 2-Wide 3-Input AND-OR-INVERT Gate	14	N			M	MX		
DM74LS73A	Dual Negative-Edge-Triggered Master-Slave JK Flip-Flops w/Clear and Complementary Outputs	14	N			M			
DM74LS74A	Dual Positive-Edge-Triggered D Flip-Flop w/Preset Clear and Complementary Outputs	14	N	SJ	SJX	M	MX		
DM74LS75	Quad Latch	16	N			M	MX		
DM74LS83A	4-Bit Binary Adder w/Fast Carry	16	N						
DM74LS85	4-Bit Magnitude Comparator	16	N			M	MX		
DM74LS86	Quad 2-Input Exclusive-OR Gate	14	N	SJ	SJX	M	MX		
DM74LS90	Decade and Binary Counter	14	N			M	MX		
DM74LS109A	Dual Positive Edge-Triggered JK Flip-Flop w/Preset Clear and Complementary Outputs	16	N			M	MX		
DM74LS112A	Dual Negative-Edge-Triggered Master-Slave JK Flip-Flop	16	N			M	MX		
DM74LS123	Dual Retriggerable One-Shot w/Clear and Complementary Outputs	16	N	SJ	SJX	M	MX		
DM74LS125A	Quad 3-STATE Buffer	14	N	SJ	SJX	M	MX		
DM74LS126A	Quad 3-STATE Buffer	14	N			M	MX		
DM74LS132	Quad 2-Input NAND Gate w/Schmitt Trigger Input	14	N	SJ	SJX	M	MX		
DM74LS136	Quad 2-Input Exclusive-OR Gate w/OC Outputs	14	N			M	MX		
DM74LS138	3-to-8 Line Decoder/Demultiplexer	16	N	SJ	SJX	M	MX		
DM74LS139	Dual 2-to-4 Line Decoder/Demultiplexer	16	N	SJ	SJX	M	MX		
DM74LS151	1-of-8 Line Data Selector/Multiplexer	16	N	SJ	SJX	M	MX		
DM74LS153	Dual 1-of-4 Line Data Selector/Multiplexer	16	N			M	MX		
DM74LS154	4-Line to 16-Line Decoder/Demultiplexer	24	N					WM	WMX
DM74LS155	Dual 2-Line to 4-Line Decoder/1-to-4 Line Demultiplexer	16	N			M	MX		
DM74LS156	Dual 2-Line to 4-Line Decoder/1-to-4 Line Demultiplexer w/OC Outputs	16	N			M	MX		
DM74LS157	Quad 2-to-1 Line Data Selector/Multiplexer	16	N	SJ	SJX	M	MX		
DM74LS158	Quad 2-to-1 Line Data Selector/Multiplexer (Inverting)	16	N			M	MX		
DM74LS161A	Synchronous 4-Bit Binary Counter w/Asynchronous Clear	16	N			M	MX		
DM74LS163A	Synchronous 4-Bit Binary Counter w/Synchronous Clear	16	N			M	MX		
DM74LS164	8-Bit Serial In/Parallel Out Shift Register w/Asynchronous Clear	14	N			M	MX		
DM74LS165	8-Bit Parallel In/Serial Out Shift Register	16	N			M	MX	WM	WMX
DM74LS166	8-Bit Parallel-In/Serial-Out Shift Register	16	N			M	MX	WM	WMX
DM74LS169A	Synchronous 4-Bit Up/Down Binary Counter	16	N			M	MX		
DM74LS174	Hex D Flip-Flop w/Clear	16	N	SJ	SJX	M	MX		
DM74LS175	Quad D Flip-Flop w/Clear and Complementary Outputs	16	N	SJ	SJX	M	MX		
DM74LS181	4-Bit Arithmetic Logic Unit	24	N						
DM74LS191	Synchronous 4-Bit Up/Down Counter w/Mode Control	16	N			M	MX		
DM74LS193	Synchronous 4-Bit Up/Down Binary Counter w/Dual Clock	16	N			M	MX		
DM74LS194A	4-Bit Bidirectional Universal Shift Register	16	N			M	MX		
DM74LS221	Dual Non-Retriggerable One-Shot w/Clear and Complementary Outputs	16	N	SJ	SJX	M	MX		
DM74LS240	Octal 3-STATE Buffer/Line Driver/Line Receiver (Inverting)	20	N	SJ	SJX			WM	WMX
DM74LS241	Octal 3-STATE Buffer/Line Driver/Line Receiver	20	N					WM	WMX
DM74LS243	Quadruple Bus Transceiver	14	N						

## DM74LSxxx, DM81LSxxx, DM96LSxxxx – Low Power Schottky (LS) Bipolar Logic (cont.)

FUNCTION	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R
DM74LS244	Octal 3-STATE Buffer/Line Driver/Line Receiver	20	N	SJ	SJX			WM	WMX
DM74LS245	Octal 3-STATE Bus Transceiver	20	N	SJ	SJX			WM	WMX
DM74LS251	3-STATE 1-of-8 Line Data Selector/Multiplexer	16	N			M	MX		
DM74LS253	Dual 3-STATE 1-of-4 Line Data Selector/Multiplexer	16	N			M	MX		
DM74LS257B	3-STATE Quad 2-Data Selector/Multiplexer	16	N			M	MX		
DM74LS259	8-Bit Serial In to Parallel Out Addressable Latches	16	N			M	MX	WM	WMX
DM74LS266	Quad 2-Input Exclusive NOR Gate w/OC Outputs	14	N			M	MX		
DM74LS273	8-Bit Register w/Clear	20	N	SJ	SJX			WM	WMX
DM74LS279	Quad S-R Latch	16	N			M	MX		
DM74LS283	4-Bit Binary Adder w/Fast Carry	16	N			M	MX		
DM74LS298	Quad 2-Port Register (Multiplexer w/Storage)	16	N						
DM74LS299	8-Input Universal Shift/Storage Register w/Common Parallel I/O Pins	20	N					WM	WMX
DM74LS365A	Hex 3-STATE Buffer/Bus Driver	16	N			M	MX		
DM74LS367A	Hex 3-STATE Buffer/Bus Driver	16	N			M	MX		
DM74LS373	Octal D-Type Transparent Latches and Edge-Triggered Flip-Flops	20	N	SJ	SJX			WM	WMX
DM74LS374	Octal D-Type Transparent Latches and Edge-Triggered Flip-Flops	20	N	SJ	SJX			WM	WMX
DM74LS377	Octal D Flip-Flop w/Common Enable and Clock	20	N					WM	WMX
DM74LS390	Dual 4-Bit Decade Counter	16	N			M	MX		
DM74LS393	Dual 4-Bit Binary Counter	14	N			M	MX		
DM74LS503	8-Bit Successive Approximation Register (w/Expansion Control)	16	N						
DM74LS533	Octal Transparent Latch w/3-STATE Outputs	20	N					WM	WMX
DM74LS534	Octal D Flip-Flop w/3-STATE Outputs	20	N						
DM74LS573	Octal D-Type Latch w/3-STATE Outputs	20	N					WM	WMX
DM74LS574	Octal D Flip-Flop w/3-STATE Outputs	20	N					WM	WMX
DM74LS645	Octal 3-STATE Bus Transceiver	20	N					WM	WMX
DM74LS670	3-STATE 4-by-4 Register File	16	N			M	MX		
DM81LS95A	3-STATE Octal Buffer	20	N					WM	
DM81LS96A	3-STATE Octal Buffer	20	N					WM	WMX
DM81LS97A	3-STATE Octal Buffer	20	N						
DM96LS02	Dual Retriggerable Resettable Monostable Multivibrator (One-Shot)	16	N			M	MX		

## DM74Sxxx, DM93Sxxxx, DM96Sxx– Schottky Bipolar Logic

Schottky (S) logic was introduced in the same time frame as LS. Although Schottky offers speeds twice as fast as LS, it comes with the penalty of higher power consumption. Due to the position of this family in the product life cycle, this family is not recommended for new designs. However, this product family is still being supported.

FUNCTION	Description	Lead	DIP	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R
DM74S00	Quad 2-Input NAND Gate	14	N	M			
DM74S02	Quad 2-Input NOR Gate	14	N				
DM74S03	Quad 2-Input NAND Gate w/Open-Collector Outputs	14			MX		
DM74S04	Hex Inverter	14	N	M	MX		
DM74S05	Hex Inverter w/Open-Collector Outputs	14	N	M	MX		
DM74S08	Quad 2-Input AND Gate	14	N				
DM74S10	Triple 3-Input NAND Gate	14	N				
DM74S11	Triple 3-Input AND Gate	14	N				
DM74S20	Dual 4-Input NAND Gate	14	N				
DM74S30	8-Input NAND Gate	14	N				
DM74S32	Quad 2-Input OR Gate	14	N				
DM74S40	Dual 4-Input NAND Buffer	14	N				
DM74S51	Dual 2-Wide 2-Input AND-OR-INVERT Gate	14	N				
DM74S74	Dual Positive-Edge-Triggered D Flip-Flop w/Preset Clear and Complementary Outputs	14	N	M	MX		
DM74S86	Quad 2-Input Exclusive-OR Gate	14	N				
DM74S112	Dual Negative-Edge-Triggered J-K Flip-Flop w/Preset Clear and Complementary Outputs	16	N				
DM74S133	13-Input NAND Gate	16	N	M	MX		
DM74S138	3-to-8 Line Decoder/Demultiplexer	16	N				
DM74S139	Dual 2-to-4 Line Decoder/Demultiplexer	16	N				
DM74S140	Dual 4-Input NAND 50 Ohm Line Driver	14	N				
DM74S151	1-of-8 Line Data Selector/Multiplexer w/Complementary Outputs	16	N				
DM74S153	Dual 1-of-4 Line Data Selector/Multiplexer	16	N				
DM74S157	Quad 2-to-1 Line Data Selector/Multiplexer	16	N				
DM74S158	Quad 2-to-1 Line Data Selector/Multiplexer (Inverting)	16	N				

## Alpha-Numeric Product Listing

### DM74Sxxx, DM93Sxxxx, DM96Sxx – Schottky Bipolar Logic (cont.)

FUNCTION	Description	Lead	DIP	SOIC	SOIC T&R	SOIC-Wide	SOIC-Wide T&R
DM74S161	Synchronous 4-Bit Binary Counter w/Asynchronous Clear	16	N				
DM74S163	Synchronous 4-Bit Binary Counter w/Synchronous Clear	16	N				
DM74S174	Hex D Flip-Flop w/Clear	16	N				
DM74S175	Quad D Flip-Flop w/Clear and Complementary Outputs	16	N				
DM74S182	Look-Ahead Carry Generator	16	N				
DM74S240	Octal 3-STATE Buffer/Line Driver/Line Receiver	20	N				
DM74S241	Octal 3-STATE Buffer/Line Driver/Line Receiver	20	N				
DM74S244	Octal 3-STATE Buffer/Line Driver/Line Receiver	20	N				
DM74S253	Dual 3-STATE 1-of-4 Line Data Selector/Multiplexer	16	N				
DM74S257	Quad 3-STATE 2-to-1 Line Data Selector/Multiplexer	16	N				
DM74S280	9-Bit Parity Generator/Checker	14	N	M			
DM74S283	4-Bit Binary Adder w/Fast Carry	16	N				
DM74S299	3-STATE 8-Bit Universal Shift/Storage Register	20	N				
DM74S373	3-STATE Octal D-Type Transparent Latches and Edge-Triggered Flip-Flops	20	N			WM	
DM74S374	3-STATE Octal D-Type Transparent Latches and Edge-Triggered Flip-Flops	20	N			WM	
DM93S41	4-Bit Arithmetic Logic Unit	24	N				
DM93S62	9-Input Parity Checker/Generator	14	N				
DM96S02	Dual Retriggerable Resettable Monostable Multivibrator	16	N	M	MX		

### FSAXxx, FSLVxxx, FSTxxx, FSTDxxx, FSTUxxx – Fairchild Switches

Fairchild's Bus Switch (FS) product line is a family of low impedance bus, bus exchange, and multiplexer/demultiplexer switches. These devices provide high speed bus switching. The low ON resistance of these NMOS pass gates allows inputs to be connected to outputs without adding propagation delay or generating additional ground bounce noise. Fairchild's Switches are ideal high speed, bidirectional interfaces between mixed supply buses, and in design situations requiring isolation and protection.

FUNCTION	Description	Leads/Balls	SOIC	SOIC T&R	SOIC-Wide	SOIC-Wide T&R	TSSOP	TSSOP T&R	QVSOP	QVSOP T&R	QSOP	QSOP T&R	SSOP	SSOP T&R	BGA	BGA T&R
FSAL200	Quad 2:1 Multiplexer/Demultiplexer Wide Bandwidth LAN Switch	16									QSC	QSCX				
FSAV330	Low On Resistance Quad SPDT Wide Bandwidth Video Switch	16	MX	M			MTD	MTDX			QSC	QSCX				
FSLV16211	24-Bit Bus Switch	56/54					MTD	MTDX						G	GX	
FST16209	18-Bit Bus Exchange Switch	48					MTD	MTDX				MEA	MEAX			
FST16210	20-Bit Bus Switch	48					MTD	MTDX								
FST16211	24-Bit Bus Switch	56/54					MTD	MTDX				MEA	MEAX	G	GX	
FST16212	24-Bit Bus Exchange Switch	56					MTD	MTDX				MEA	MEAX			
FST16213	24-Bit Bus Exchange Switch	56					MTD	MTDX				MEA	MEAX			
FST162245	16-Bit Bus Switch w/25 Ω Series Resistors in Outputs	48					MTD	MTDX								
FST16232	Synchronous 16-Bit to 32-Bit Multiplexer/Demultiplexer Bus Switch	56					MTD	MTDX				MEA	MEAX			
FST16233	16-Bit to 32-Bit Multiplexer/Demultiplexer Bus Switch	56					MTD	MTDX				MEA	MEAX			
FST16245	Octal Bus Switch	48					MTD	MTDX								
FST162861	20-Bit Bus Switch w/25 Ω Series Resistors in Outputs	48					MTD	MTDX								
FST16292	12-Bit to 24-Bit Multiplexer/Demultiplexer Bus Switch	56					MTD	MTDX				MEA	MEAX			

## FSAxxx, FSLVxxx, FSTxxx, FSTDxxx, FSTUxxx – Fairchild Switches (cont.)

FUNCTION	Description	Leads/ Balls	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R	QVSOP	QVSOP T&R	QSOP	QSOP T&R	SSOP	SSOP T&R	BGA	BGA T&R
FST16861	20-Bit Bus Switch	48					MTD	MTDX								
FST16862	20-Bit Bus Switch	48					MTD	MTDX								
FST3125	4-Bit Bus Switch	16									QSC	QSCX				
FST3125	4-Bit Bus Switch	14	M	MX			MTC	MTCX								
FST3126	Quad Bus Switch	16									QSC	QSCX				
FST3126	Quad Bus Switch	14	M	MX			MTC	MTCX								
FST32211	40/48-Bit Bus Switch	114														GX
FST32253	Dual 4:1 Multiplexer/Demultiplexer Bus Switch w/25 Ω Series Resistors in Outputs	16	M	MX			MTC	MTCX			QSC	QSCX				
FST3244	Octal Bus Switch	20			WM	WMX	MTC	MTCX			QSC	QSCX				
FST3245	Octal Bus Switch	20			WM	WMX	MTC	MTCX			QSC	QSCX				
FST3253	Dual 4:1 Multiplexer/Demultiplexer Bus Switch	16	M	MX			MTC	MTCX			QSC	QSCX				
FST3257	Quad 2:1 Multiplexer/Demultiplexer Bus Switch	16	M	MX			MTC	MTCX			QSC	QSCX				
FST32X245	16-Bit Bus Switch	40									QSP	QSPX				
FST3306	2-Bit Low Power Bus Switch	8					MTC	MTCX								
FST3345	8-Bit Bus Switch	20			WM	WMX	MTC	MTCX			QSC	QSCX				
FST3383	10-Bit Low Power Bus-Exchange Switch	24			WM	WMX	MTC	MTCX			QSC	QSCX				
FST3384	10-Bit Low Power Bus Switch	24			WM	WMX	MTC	MTCX			QSC	QSCX				
FST33X257	24:12 Multiplexer/Demultiplexer Bus Switch															
FST34170	17-Bit to 34-Bit Multiplexer/Demultiplexer Bus Switch	56					MTD	MTDX								
FST34X2245	32-Bit Bus Switch w/25 Ω Series Resistor in Outputs	80								QSP						
FST34X245	32-Bit Bus Switch	80								QSP						
FST6800	10-Bit Bus Switch w/Precharged Outputs	24			WM	WMX	MTC	MTCX			QSC	QSCX				
FSTD16211	24-Bit Bus Switch w/Level Shifting	56					MTD	MTDX								
FSTD16450	Configurable 4-Bit to 20-Bit Bus Switch w/Selectable Level Shifting	56					MTD	MTDX								
FSTD16861	20-Bit Bus Switch w/Level Shifting	48					MTD	MTDX								
FSTD3125	4-Bit Bus Switch w/Level Shifting	16										QSCX				
FSTD3125	4-Bit Bus Switch w/Level Shifting	14	M	MX				MTCX								
FSTD32211	40/48-Bit Bus Switch w/Level Shifting	114														GX
FSTD3306	2-Bit Low Power Bus Switch w/Level Shifting	8					MTC	MTCX								
FSTU16245	16-Bit Bus Switch w/-2V Undershoot Protection	48					MTD	MTDX								
FSTU16861	20-Bit Bus Switch w/-2V Undershoot Protection	48					MTD	MTDX								
FSTU16862	20-Bit Bus Switch with -2V Undershoot Protection	48					MTD	MTDX		QSPX	QSP					
FSTU3125	4-Bit Bus Switch w/-2V Undershoot Protection	16										QSCX				
FSTU3125	4-Bit Bus Switch w/-2V Undershoot Protection	14	M	MX				MTCX								
FSTU32160	16-Bit to 32-Bit Multiplexer/Demultiplexer Bus Switch w/-2V Undershoot Protection	56					MTD	MTDX								
FSTU32160A	16-Bit to 32-Bit Multiplexer/Demultiplexer Bus Switch w/-2V Undershoot Protection	56					MTD	MTDX								
FSTU3253	Dual 4:1 Multiplexer/Demultiplexer Bus Switch w/-2V Undershoot Protection	16	M	MX			MTC	MTCX			QSC	QSCX				
FSTU3257	Quad 2:1 Multiplexer/Demultiplexer Bus Switch w/-2V Undershoot Protection	16	M	MX			MTC	MTCX			QSC	QSCX				
FSTU32X384	20-Bit Low Power Bus Switch w/-2V Undershoot Protection								QSP	QSPX						
FSTU3384	10-Bit Bus Switch w/-2V Undershoot Protection	24			WM	WMX	MTC	MTCX			QSC	QSCX				
FSTU6800	10-Bit Bus Switch w/Precharged Outputs and -2V Undershoot Protection	24			WM	WMX	MTC	MTCX			QSC	QSCX				
FSTUD16211	24-Bit Bus Switch w/Level Shifting and -2V Undershoot Protection	56					MTD	MTDX								
FSTUD162450	Configurable 4-Bit to 20-Bit Bus Switch w/-2V Undershoot Protection and Selectable Level Shifting	56					MTD	MTDX								
FSTUD16450	Configurable 4-Bit to 20-Bit Bus Switch w/-2V Undershoot Protection and Selectable Level Shifting	56					MTD	MTDX								
FSTUD32450	Configurable 4-Bit to 40-Bit Bus Switch w/-2V Undershoot Protection and Selectable Level Shifting	114														GX

## Alpha-Numeric Product Listing

### MM74Cxxx, MM80Cxxx, MM82Cxxxx, MM88Cxxxx – 74C CMOS Logic

74C logic allows power supply voltages up to 15V and rail output swings. It is pinout and functionally compatible with the 7400 TTL families. In addition to being specified over a broad temperature range, 74C products lend themselves to the industrial and automotive markets due to their ruggedness and high voltage operation.

FUNCTION	Description	Lead	DIP	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R
MM74C00	Quad 2-Input NAND Gate	14	N	M	MX		
MM74C02	Quad 2-Input NOR Gate	14	N				
MM74C04	Hex Inverter	14	N	M	MX		
MM74C08	Quad 2-Input AND Gate	14	N				
MM74C14	Hex Schmitt Trigger	14	N	M	MX		
MM74C32	Quad 2-Input OR Gate	14	N	M	MX		
MM74C42	BCD-to-Decimal Decoder	16	N				
MM74C48	BCD-to-7 Segment Decoder	16	N				
MM74C73	Dual J-K Flip-Flops w/Clear and Preset	14	N				
MM74C74	Dual D Flip-Flop	14	N	M	MX		
MM74C76	Dual J-K Flip-Flops w/Clear and Preset	16	N	M	MX		
MM74C85	4-Bit Magnitude Comparator	16	N				
MM74C86	Quad 2-Input Exclusive-OR Gate	14	N	M	MX		
MM74C89	64-Bit 3-STATE Random Access Read/Write Memory	16	N				
MM74C90	4-Bit Decade Counter	14	N				
MM74C93	4-Bit Binary Counter	14	N				
MM74C150	16-Line to 1-Line Multiplexer 3-STATE	24	N				
MM74C154	4-Line to 16-Line Decoder/Demultiplexer	24	N			WM	WMX
MM74C157	Quad 2-Input Multiplexers	16	N				
MM74C164	8-Bit Parallel-Out Serial Shift Register	14	N	M	MX		
MM74C165	Parallel-Load 8-Bit Shift Register	16	N				
MM74C174	Hex D-Type Flip-Flop	16	N	M	MX		
MM74C175	Quad D-Type Flip-Flop	16	N	M	MX		
MM74C192	Synchronous 4-Bit Up/Down Decode Counter	16	N				
MM74C193	Synchronous 4-Bit Up/Down Binary Counter	16	N	M	MX		
MM74C221	Dual Monostable Multivibrator	16	N				
MM74C240	Inverting Octal Buffer and Line Driver w/3-STATE Outputs	20	N			WM	WMX
MM74C244	Non-Inverting Octal Buffer and Line Driver w/3-STATE Outputs	20	N			WM	WMX
MM74C373	3-STATE Octal D-Type Latch	20	N			WM	WMX
MM74C374	3-STATE Octal D-Type Flip-Flops	20	N			WM	WMX
MM74C901	Hex Inverting TTL Buffer	14	N	M	MX		
MM74C902	Hex Non-Inverting TTL Buffer	14	N	M			
MM74C905	12-Bit Successive Approximation Register	24	N				
MM74C906	Hex Open Drain N-Channel Buffers	14	N	M	MX		
MM74C907	Hex Open Drain P-Channel Buffers	14	N				
MM74C908	Dual CMOS 30-Volt Relay Driver	8	N				
MM74C911	4-Digit Expandable Segment Display Controller	28	N				
MM74C912	6-Digit BCD Display Controller/Driver	28	N				
MM74C914	Hex Schmitt Trigger w/Extended Input Voltage	14	N	M	MX		
MM74C922	16-Key Encoder	20				WM	WMX
MM74C922	16-Key Encoder	18	N				
MM74C923	20-Key Encoder	20	N			WM	WMX
MM74C925	4-Digit Counters w/Multiplexed 7-Segment Output Drivers	16	N				
MM74C926	4-Digit Counters w/Multiplexed 7-Segment Output Drivers	18	N				
MM74C927	4-Digit Counters w/Multiplexed 7-Segment Output Drivers	18	N				
MM74C928	4-Digit Counters w/Multiplexed 7-Segment Output Drivers	18	N				
MM80C95	3-STATE Hex Buffer/Inverters	16	N				
MM80C97	3-STATE Hex Buffer/Inverters	16	N	M	MX		
MM80C98	3-STATE Hex Buffer/Inverters	16	N				
MM82C19	16-Line to 1-Line Multiplexer	24	N				
MM88C29	Quad Single-Ended Line Driver	14	N				
MM88C30	Dual Differential Line Driver	14	N	M	MX		

## MM74HCxxx, MM74HCUxxx – HC CMOS Logic

HC (High Speed CMOS) offers the low power and high noise immunity of CMOS at the speed performance of Low Power Schottky. For increased speed and/or drive requirements, refer to the VHC logic section.

FUNCTION	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R
MM74HC00	Quad 2-Input NAND Gate	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC02	Quad 2-Input NOR Gate	14	N			M	MX			MTC	MTCX
MM74HC04	Hex Inverter	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HCU04	Hex Inverter	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC08	Quad 2-Input AND Gate	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC14	Hex Inverting Schmitt Trigger	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC32	Quad 2-Input OR Gate	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC74A	Dual D-Type Flip-Flop w/Presets and Clear	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC86	Quad 2-Input Exclusive OR Gate	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC123A	Dual Retriggerable Monostable Multivibrator	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC125	3-STATE Quad Buffers	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC126	3-STATE Quad Buffers	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC132	Quad 2-Input NAND Schmitt Trigger	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC138	3 to 8 Line Decoder	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC139	Dual 2-to-4 Line Decoder	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC148	8-3 Line Priority Encoder	16	N			M	MX				
MM74HC151	8-Channel Digital Multiplexer	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC154	4 to 16 Line Decoder	24	N					WM	WMX	MTC	MTCX
MM74HC157	Quad 2-Input Multiplexer	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC161	Synchronous Binary Counter w/Asynchronous Clear	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC163	Synchronous Binary Counter w/Synchronous Clear	16	N	SJ	SJX	M	MX				
MM74HC164	8-Bit Serial-in/Parallel-out Shift Register	14	N			M	MX				
MM74HC165	Parallel-in/Serial-out 8-Bit Shift Register	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC174	Hex D-Type Flip-Flop w/Clear	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC175	Quad D-Type Flip-Flop w/Clear	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC221A	Dual Non-Retriggerable Monostable Multivibrator	16	N	SJ	SJX	M	MX				
MM74HC240	Inverting Octal 3-STATE Buffer	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HC244	Octal 3-STATE Buffer	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HC245A	Octal 3-STATE Transceiver	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HC251	8-Channel 3-STATE Multiplexer	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC259	8-Bit Addressable Latch/3-to-8 Line Decoder	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC273	Octal D-Type Flip-Flop w/Clear	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HC373	3-STATE Octal D-Type Latch	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HC374	3-STATE Octal D-Type Flip-Flop	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HC393	Dual 4-Bit Binary Counter	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC423A	Dual Retriggerable Monostable Multivibrator	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC540	Inverting Octal 3-STATE Buffers	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HC541	Octal 3-STATE Buffers	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HC573	3-STATE Octal D-Type Latch	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HC574	3-STATE Octal D-Type Edge-Triggered Flip-Flop	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HC589	8-Bit Shift Registers w/Input Latches and 3-STATE Serial Output	16	N	SJ	SJX	M	MX				
MM74HC594	8-Bit Shift Register w/Output Registers	16	N			M	MX				
MM74HC595	8-Bit Shift Registers w/Output Latches	16	N	SJ	SJX	M	MX	WM	WMX	MTC	MTCX
MM74HC597	8-Bit Shift Registers w/Input Latches	16	N	SJ	SJX	M	MX				
MM74HC688	8-Bit Magnitude Comparator (Equality Detector)	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HC4020	14-Stage Binary Counter	16	N	SJ	SJX	M	MX				
MM74HC4040	12-Stage Binary Counter	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC4046	CMOS Phase-Locked Loop	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC4049	Hex Inverting Logic Level Down Converter	16	N			M	MX			MTC	MTCX
MM74HC4050	Hex Logic Level Down Converter	16	N			M	MX			MTC	MTCX
MM74HC4051	8-Channel Analog Multiplexer	16	N	SJ	SJX	M	MX	WM	WMX	MTC	MTCX
MM74HC4052	Dual 4-Channel Analog Multiplexer	16	N	SJ	SJX	M	MX	WM	WMX	MTC	MTCX
MM74HC4053	Triple 2-Channel Analog Multiplexer	16	N	SJ	SJX	M	MX	WM	WMX	MTC	MTCX
MM74HC4060	14 Stage Binary Counter	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC4066	Quad Analog Switch	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HC4316	Quad Analog Switch w/Level Translator	16	N	SJ	SJX	M	MX	WM	WMX	MTC	MTCX
MM74HC4514	4-to-16 Line Decoder w/Latch	24	N					WM	WMX	MTC	MTCX
MM74HC4538	Dual Retriggerable Monostable Multivibrator	16	N	SJ	SJX	M	MX				



## Alpha-Numeric Product Listing

### MM74HCTxxx – HCT CMOS Logic

HCT (High Speed CMOS) offers the low power and high noise immunity of CMOS at the speed performance of Low Power Schottky. For increased speed and/or drive requirements, refer to the VHCT logic section.

FUNCTION	Description	Lead	DIP	SOP	SOP T&R	SOIC	SOIC T&R	SOIC- Wide	SOIC- Wide T&R	TSSOP	TSSOP T&R
MM74HCT00	Quad 2 Input NAND Gate	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HCT04	Hex Inverter	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HCT05	Hex Inverter (Open Drain)	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HCT08	Quad 2-Input AND Gate	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HCT14	Hex Inverting Schmitt Trigger	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HCT32	Quad 2-Input OR Gate	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HCT74	Dual D Flip-Flop w/Preset and Clear	14	N	SJ	SJX	M	MX			MTC	MTCX
MM74HCT138	3-to-8 Line Decoder	16	N	SJ	SJX	M	MX			MTC	MTCX
MM74HCT164	8-Bit Serial-in/Parallel-out Shift Register	14	N	SJ	SJX	M	MX				
MM74HCT240	Inverting Octal 3-STATE Buffer	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HCT244	Octal 3-STATE Buffer	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HCT245	Octal 3-STATE Transceiver	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HCT273	Octal D Flip-Flop w/Clear	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HCT373	3-STATE Octal D-Type Latch	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HCT374	3-STATE Octal D-Type Flip-Flop	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HCT540	Inverting Octal 3-STATE Buffer	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HCT541	Octal 3-STATE Buffer	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HCT573	Octal D-Type Latch	20	N	SJ	SJX			WM	WMX	MTC	MTCX
MM74HCT574	3-STATE Octal D-Type Flip-Flop	20	N	SJ	SJX			WM	WMX	MTC	MTCX

### NC7Sxx, NC7SUxx – TinyLogic™ HS Series

TinyLogic provides single-gate functions in some of the smallest packages available today. The Tiny High Speed Series (HS) offers performance similar to HC/VHC and is available with CMOS-compatible inputs.

FUNCTION	Description	Lead	SC70 T&R	SOT-23 T&R	MicroPak™ T&R
NC7S00	2-Input NAND Gate	5/6	P5X	M5X	L6X
NC7S02	2-Input NOR Gate	5/6	P5X	M5X	L6X
NC7S04	Inverter	5/6	P5X	M5X	L6X
NC7SU04	Unbuffered Inverter	5/6	P5X	M5X	L6X
NC7S08	2-Input AND Gate	5/6	P5X	M5X	L6X
NC7S14	Inverter w/Schmitt Trigger Input	5/6	P5X	M5X	L6X
NC7S32	2-Input OR Gate	5/6	P5X	M5X	L6X
NC7S86	2-Input Exclusive-OR Gate	5/6	P5X	M5X	L6X



## NC7STxx – TinyLogic™ HST Series

TinyLogic provides single-gate functions in some of the smallest packages available today. The Tiny High Speed Series (HST) offers performance similar to HC/VHC and is available with TTL-compatible inputs.

FUNCTION	Description	Lead	SC70 T&R	SOT-23 T&R	MicroPak™ T&R
NC7ST00	2-Input NAND Gate	5/6	P5X	M5X	L6X
NC7ST02	2-Input NOR Gate	5/6	P5X	M5X	L6X
NC7ST04	Inverter	5/6	P5X	M5X	L6X
NC7ST08	2-Input AND Gate	5/6	P5X	M5X	L6X
NC7ST32	2-Input OR Gate	5/6	P5X	M5X	L6X
NC7ST86	2-Input Exclusive-OR Gate	5/6	P5X	M5X	L6X

## NC7SZxx, NC7SZUxx, NC7WZxx – TinyLogic™ UHS Series

TinyLogic provides single- and dual-gate functions in some of the smallest packages available today. The Tiny Ultra High Speed Series (UHS) offers faster speeds and higher drive than the HS Series as well as 5V tolerant inputs.

FUNCTION	Description	Lead	SC70 T&R	US8 T&R	SOT-23 T&R	MicroPak™ T&R
NC7NZ04	Inverter	8		K8X		
NC7NZU04	Unbuffered Inverter	8		K8X		
NC7NZ14	Inverter w/Schmitt Trigger Input	8		K8X		
NC7NZ17	Triple Buffer w/Schmitt Trigger Inputs	8		K8X		
NC7NZ34	Triple Buffer	8		K8X		
NC7SZ00	2-Input NAND Gate	5/6	P5X		M5X	L6X
NC7SZ02	2-Input NOR Gate	5/6	P5X		M5X	L6X
NC7SZ04	Inverter	5/6	P5X		M5X	L6X
NC7SZU04	Unbuffered Inverter	5/6	P5X		M5X	L6X
NC7SZ05	Inverter (Open Drain Output)	5/6	P5X		M5X	L6X
NC7SZ08	2-Input AND Gate	5/6	P5X		M5X	L6X
NC7SZ10	3-Input NAND Gate	6	P6X			L6X
NC7SZ11	3-Input AND Gate	6	P6X			L6X
NC7SZ14	Inverter w/Schmitt Trigger Input	5/6	P5X		M5X	L6X
NC7SZ18	1-of-2 Non-Inverting Demultiplexer w/3-STATE Deselected Output	6	P6X			L6X
NC7SZ19	1-of-2 Decoder/Demultiplexer	6	P6X			L6X
NC7SZ27	3-Input NOR Gate	6	P6X			L6X
NC7SZ32	2-Input OR Gate	5/6	P5X		M5X	L6X
NC7SZ38	2-Input NAND Gate (Open Drain Output)	5/6	P5X		M5X	L6X
NC7SZ57	Universal Configurable 2-Input Logic Gates	6	P6X			L6X
NC7SZ58	Universal Configurable 2-Input Logic Gates	6	P6X			L6X
NC7SZ74	D-Type Flip-Flop w/Preset and Clear	8		K8X		
NC7SZ86	TinyLogic UHS 2-Input Exclusive-OR Gate	6	P5X		M5X	L6X
NC7SZ125	Buffer w/3-STATE Output	5/6	P5X		M5X	L6X
NC7SZ126	Buffer w/3-STATE Output	5/6	P5X		M5X	L6X
NC7SZ157	2-Input Non-Inverting Multiplexer	6	P6X			L6X
NC7SZ175	D-Type Flip-Flop w/Asynchronous Clear	6	P6X			L6X
NC7SZ332	3-Input OR Gate	6	P6X			L6X
NC7SZ373	D-Type Latch w/3-STATE Output	6	P6X			L6X
NC7SZ374	D-Type Flip-Flop w/3-STATE Output	6	P6X			L6X
NC7SZ386	3-Input Exclusive-OR Gate	6	P6X			L6X
NC7WZ00	Dual 2-Input NAND Gate	8		K8X		
NC7WZ02	Dual 2-Input NOR Gate	8		K8X		
NC7WZ04	Dual Inverter	6	P6X			L6X
NC7WZU04	Dual Unbuffered Inverter	6	P6X			L6X

## Alpha-Numeric Product Listing

### NC7SZxx, NC7SZUxx, NC7WZxx – TinyLogic™ UHS Series (cont.)

FUNCTION	Description	Lead	SC70 T&R	US8 T&R	SOT-23 T&R	MicroPak™ T&R
NC7WZ07	Dual Buffer (Open Drain Outputs)	6	P6X			L6X
NC7WZ08	Dual 2-Input AND Gate	8		K8X		
NC7WZ14	Dual Inverter w/Schmitt Trigger Inputs	6	P6X			L6X
NC7WZ16	Dual Buffer	6	P6X			L6X
NC7WZ17	Dual Buffer w/Schmitt Trigger Inputs	6	P6X			L6X
NC7WZ32	Dual 2-Input OR Gate	8		K8X		
NC7WZ38	Dual 2-Input NAND Gate (Open Drain Output)	8		K8X		
NC7WZ86	Dual 2-Input Exclusive-OR Gate	8		K8X		
NC7WZ125	Buffer w/3-STATE Output	8		K8X		
NC7WZ126	Buffer w/3-STATE Output	8		K8X		
NC7WZ132	Dual 2-Input NAND Gate w/Schmitt Trigger Inputs	8		K8X		
NC7WZ240	Dual Inverting Buffer w/3-STATE Outputs	8		K8X		
NC7WZ241	Dual Buffer w/3-STATE Outputs	8		K8X		

### NC7SBxx, NC7SZxx, NC7WBxxxx – TinyLogic™ Switch Series

TinyLogic provides analog and bus switch functions in some of the smallest packages available today. These devices provide high speed CMOS, analog, and TTL-compatible bus switching.

FUNCTION	Description	Lead	SC70 T&R	US8 T&R	SOT-23 T&R
NC7SB3157	Low Voltage UHS SPDT Analog Switch or 2:1 Multiplexer/Demultiplexer Bus Switch	6	P6X		
NC7SB3257	Single 2-to-1 Multiplexer/Demultiplexer Bus Switch	6	P6X		
NC7SZ66	Low Voltage UHS Single SPST Normally Open Analog Switch or 1-Bit Bus Switch	5	P5X		M5X
NC7SZ384	1-Bit Low Power Bus Switch	5	P5X		M5X
NC7SZD384	1-Bit Low Power Bus Switch w/Level Shifting	5	P5X		M5X
NC7WB66	Low Voltage UHS Dual SPST Normally Open Analog Switch or 2-Bit Bus Switch	8		K8X	
NC7WB3125	Dual Low Power Bus Switch	8		K8X	
NC7WB3306	Dual Low Power Bus Switch	8		K8X	
NC7WBD3125	Dual Low Power Bus Switch w/Level Shifting	8		K8X	
NC7WBD3306	2-Bit Low Power Bus Switch w/Level Shifting	8		K8X	
NC7SBU3157	TinyLogic Low Voltage UHS SPDT Analog Switch w/-2 Undershoot Protection	6	P6X		

### NC7SPxx, NC7SVxx – TinyLogic™ Ultra Low Power (ULP and ULP-A)

TinyLogic Ultra Low Power (ULP) offers the lowest power logic in the .9V to 3.3V V<sub>CC</sub> operating range. TinyLogic ULP-A is low power, high drive and 3 times the speed of TinyLogic ULP devices.

FUNCTION	Description	Lead	SC70 T&R	US8 T&R	SOT-23 T&R	MicroPak™ T&R
NC7SP04	TinyLogic ULP Inverter	5/6	P5X			L6X
NC7SP08	TinyLogic ULP 2-Input AND Gate	5/6	P5X			L6X
NC7SP57	TinyLogic ULP Universal Configurable 2-Input Logic Gates	6	P6X			L6X
NC7SP58	TinyLogic ULP Universal Configurable 2-Input Logic Gates	6	P6X			L6X
NC7SV00	TinyLogic ULP-A 2-Input NAND Gate	5/6	P5X			L6X
NC7SV02	TinyLogic ULP-A 2-Input NOR Gate	5/6	P5X			L6X
NC7SV04	TinyLogic ULP-A Inverter	5/6	P5X			L6X
NC7SVU04	TinyLogic ULP-A Unbuffered Inverter	5/6	P5X			L6X
NC7SV08	TinyLogic ULP-A 2-Input AND Gate	5/6	P5X			L6X
NC7SV32	TinyLogic ULP-A 2-Input OR Gate	5/6	P5X			L6X
NC7SV125	TinyLogic ULP-A Buffer with 3-STATE Output	5/6	P5X			L6X

## SCANxxx – SCAN System &amp; Board Test Products (IEEE 1149.1)

Boundary Scan products are designed to support testability at the board and/or the system level. Fairchild's SCAN products are fully compliant with the IEEE 1149.1 Standard for Boundary Scan Test. The product portfolio consists of 18-bit buffers, transceivers, latches, and registers. In addition, there are two products to support test at the system level — the SCANPSC100F Controller and the SCANPSC110F Addressable JTAG Port.

FUNCTION	Description	Lead	SOIC-Wide	SOIC-Wide T&R	TSSOP	TSSOP T&R	SSOP	SSOP T&R
SCAN182245A	Non-Inverting Transceiver w/25 Ohm Series Resistor Outputs	56			MTD	MTDX	SSC	SSCX
SCAN182373A	Transparent Latch w/25 Ohm Series Resistor Output	56					SSC	SSCX
SCAN182374A	D Flip-Flop w/25 Ohm Series Resistor Outputs	56					SSC	SSCX
SCAN182541A	Non-Inverting Line Driver w/25 Ohm Series Resistor Outputs	56					SSC	SSCX
SCAN18245T	Non-Inverting Transceiver w/3-STATE Outputs	56					SSC	SSCX
SCAN18373T	Transparent Latch w/3-STATE Outputs	56					SSC	SSCX
SCAN18374T	D Flip-Flop w/3-STATE Outputs	56					SSC	SSCX
SCAN18540T	Inverting Line Driver w/3-STATE Outputs	56					SSC	SSCX
SCAN18541T	Non-Inverting Line Driver w/3-STATE Outputs	56					SSC	SSCX
SCANPSC100F	Embedded Boundary Scan Controller	28	SC	SCX				
SCANPSC110F	SCAN Bridge Hierarchical and Multidrop Addressable JTAG Port (IEEE 1149.1 Support)	28	SC	SCX				

## SSTVxxxx – Series Stub Termination Logic Products

Series Stub Termination Logic (SSTL) registers support driving of address and control signals in Double Data Rate (DDR) memory modules. These devices are compliant with JEDEC DDR-1 registered memory module specifications.

FUNCTION	Description	Leads/Balls	TSSOP	TSSOP T&R	BGA	BGA T&R
SSTV16857	14-Bit Register w/SSTL-2 Compatible I/O and Reset	48	MTD	MTDX		
SSTV16859	Dual Output 13-Bit Register w/SSTL-2 Compatible I/O and Reset	64/96	MTD	MTDX	G	GX

## Ordering Codes

### Logic Products Ordering Codes

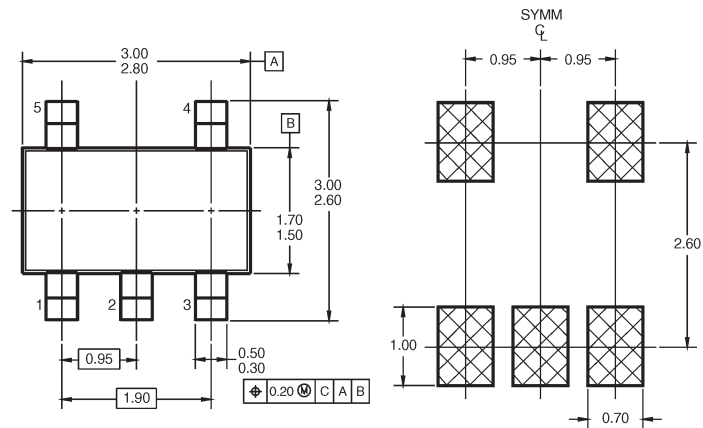
XXXX	X	245	MEA	X	
<b>Family Designator/Series</b>					<b>Feature Designation</b>
100xxx					D = Diode
74ABT					H = Bushold Inputs
74AC					P = Pull-down Resistors on Inputs
74ACT					R = Series Resistors on A and B Side Outputs
74ACQ					U = Unbuffered
74ACTQ					
74ALVC					<b>Device Type</b>
74F					<b>Package Code</b>
74FR					SPC/PC/N = Molded Dual In-Line Package (DIP)
74LCX					SJ = Molded Small Outline Package, EIAJ (SOP)
74LVT					SC/M = (0.150" Wide) Molded Small Outline Package, JEDEC (SOIC)
74LVX					WM = (0.300" Wide) Molded Small Outline Package, JEDEC (SOIC)
74VCX					MSA = Shrink Small Outline Package, JEDEC (SSOP)
74VHC					SSC/MEA = Shrink Small Outline Package, JEDEC (48/56-Lead SSOP)
74VHCT					MTC = Thin Shrink Small Outline Package, JEDEC, 4.4mm Box Width (TSSOP)
CD4					MTD = Thin Shrink Small Outline Package, JEDEC, 6.1mm Box Width (48/56/64-Lead TSSOP)
CGS					QSC = Shrink Small Outline Package, JEDEC (QSOP)
DM74					QSP = Quarter Size Very Small Outline Package, JEDEC (QSOP, QVSOP)
DM74ALS					M5 = 5-Lead SOT23-5
DM74AS					P5 = 5-Lead SC70
DM74LS					P6 = 6-Lead SC70
DM74S					K8 = 8-Lead US8
FSx					L6 = 6-Lead MicroPak™
T					G = Fine-Pitch Ball Grid Array, JEDEC (FBGA)
LV					
MM74C					<b>Special Variations</b>
MM74HC					"X" = Tape and Reel
MM74HCT					" " = Rail/Tube
NC7xx					
S					
SB					
ST					
SZ					
SP					
SV					
WB					
WZ					
SCANxxxx					
SSTV					

## Package Codes

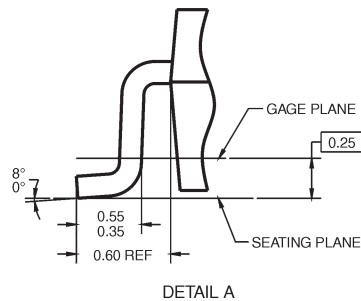
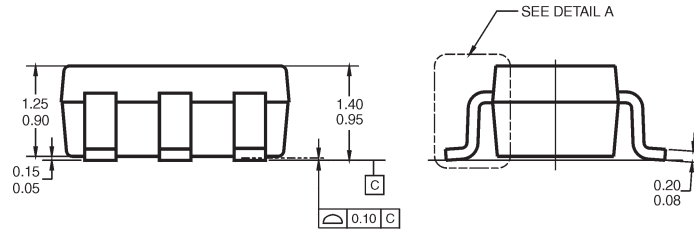
Family	DIP	SOIC Wide	SOIC	SOP EIAJ	PLCC	QSOP	QVSOP	SSOPII	TSSOP 48/56	SSOP 48/56	TSSOP	BGA 5-Lead	SOT23 5-Lead	SC70 6-Lead	SC70 8-Lead	US8	MicroPak
ABT	PC	SC		SJ				MSA	MTC	SSC	MTD						
ALVC/ALVCH			M						MTC		MTD, T	GX					
ALS	N, NT	WM	M	SJ					MTC								
AS	N, NT	WM	M	SJ													
CD4K/MM74C	N	WM	M	SJ					MTC								
ECL	DC, PC	SC		SJ	QC, QI												
FACT	PC, SPC	SC		SJ	QC			MSA	MTC								
FACT QS	PC, SPC	SC		SJ		QSC		MSA	MTC	SSC							
FAST	PC, SPC	SC		SJ	QC			MSA	MTC								
FASTr	PC, SPC	SC		SJ				MSA		SSC							
Fairchild Switch		WM	M			QSC	QSP		MTC	MEA	MTD	GX					
HC/HCT	N	WM	M	SJ					MTC								
LCX		WM	M	SJ				MSA	MTC	MEA, ME	MTD, MT	GX					
LS	N	WM	M	SJ													
LVT/LVTH		WM	M	SJ				MSA	MTC	MEA, ME	MTD, MT	GX					
LVX		WM	M	SJ		QSC		MSA	MTC	MEA	MTD, MT	GX					
Schottky(S)	N	WM	M														
SCAN		SC								SSC	MTD						
TinyLogic													M5X	P5X	P6X	K8X	L6X
TTL	N		M														
VCX		WM	M						MTC	MEA	MTD, MT	GX					
VHC/VHCT	N	WM	M	SJ					MTC	MEA	MTD						

## Physical Dimensions

MA05B 5-Lead SOT23, JEDEC MO-178, 1.6mm



LAND PATTERN RECOMMENDATION

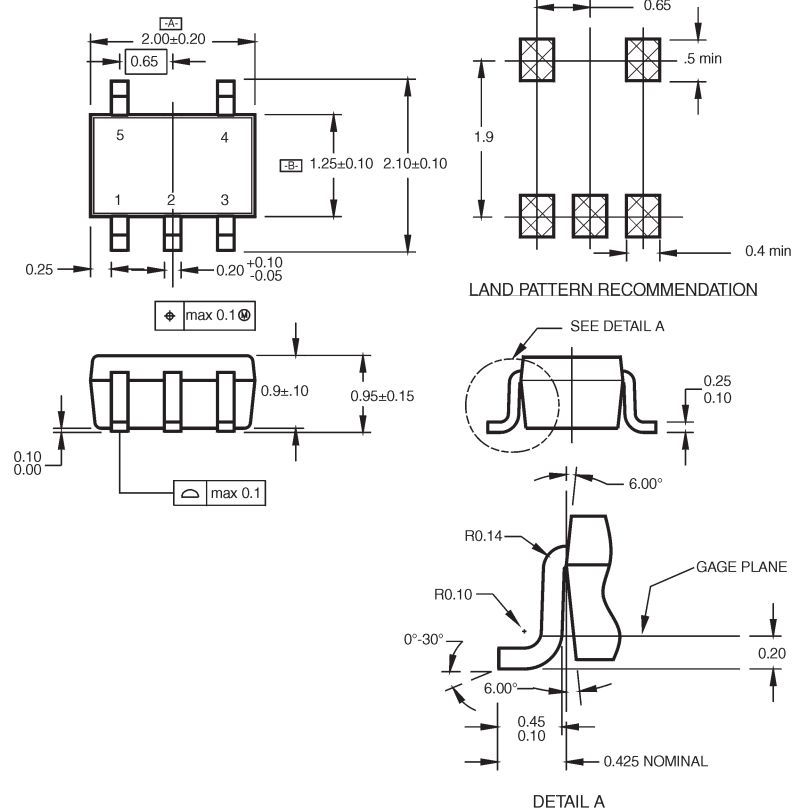


NOTES: UNLESS OTHERWISE SPECIFIED  
 A) THIS PACKAGE CONFORMS TO JEDEC MO-178, ISSUE B, VARIATION AA, DATED JANUARY 1999.  
 B) ALL DIMENSIONS ARE IN MILLIMETERS.

MA05BRevC

All dimensions are in millimeters

MAA05A 5-Lead SC70, EIAJ SC-88a, 1.25mm Wide



NOTES:

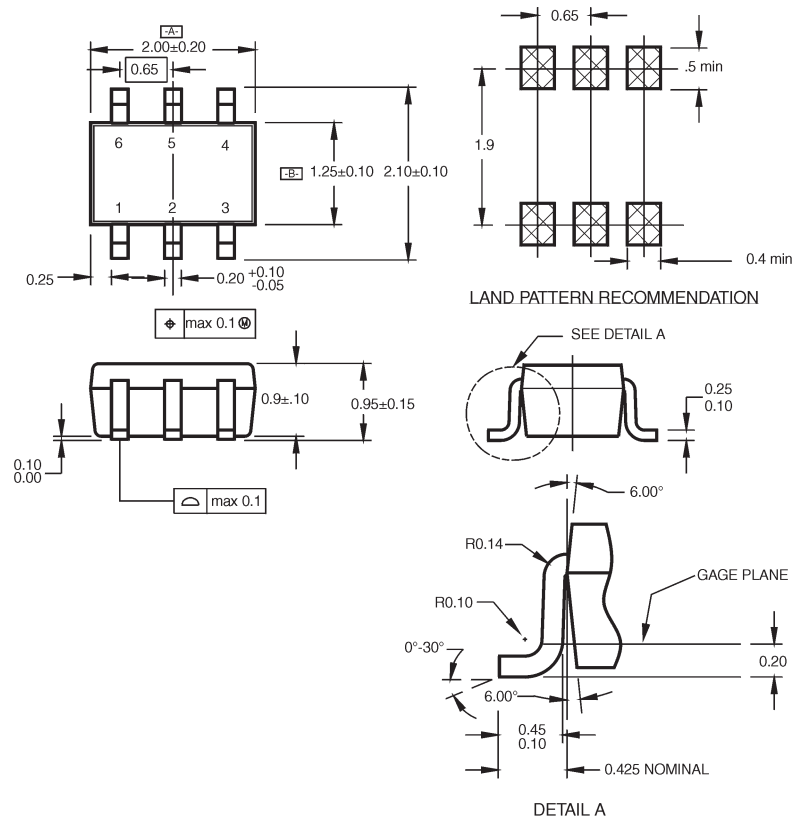
- A. CONFORMS TO EIAJ REGISTERED OUTLINE DRAWING SC88A.
- B. DIMENSIONS DO NOT INCLUDE BURRS OR MOLD FLASH.
- C. DIMENSIONS ARE IN MILLIMETERS.

MAA05ARevC

**All dimensions are in millimeters**

## Physical Dimensions

MAA06A 6-Lead SC70, EIAJ SC88, 1.25mm Wide



NOTES:

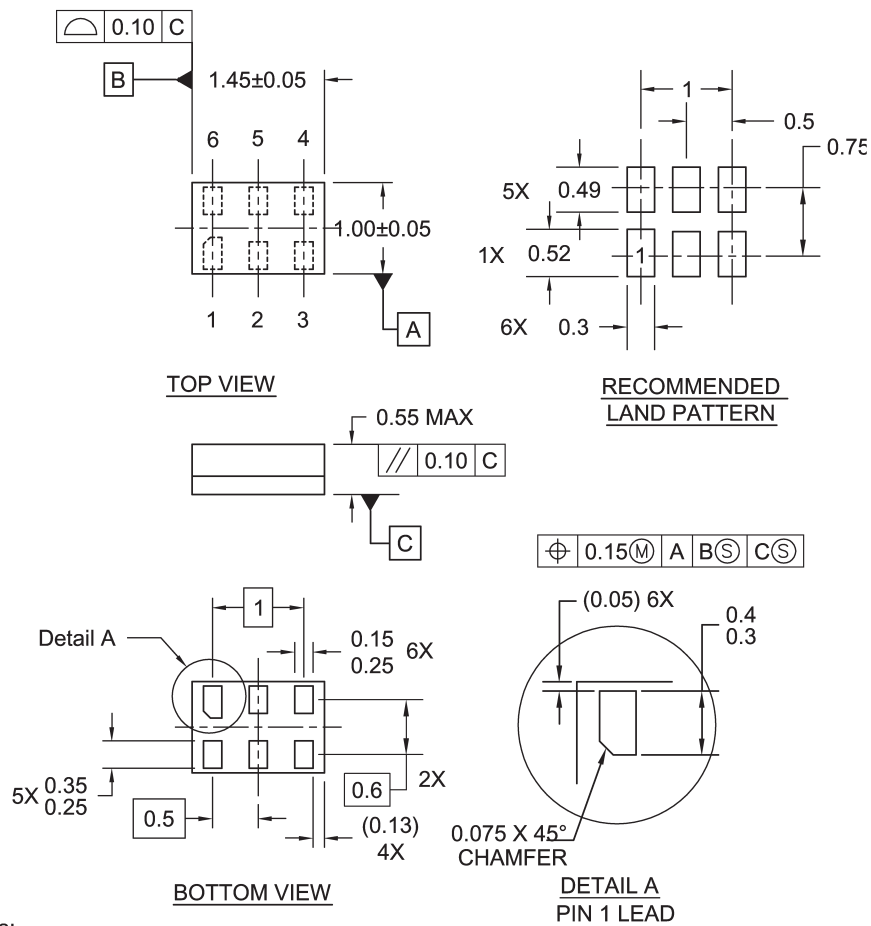
- A. CONFORMS TO EIAJ REGISTERED OUTLINE DRAWING SC88.
- B. DIMENSIONS DO NOT INCLUDE BURRS OR MOLD FLASH.
- C. DIMENSIONS ARE IN MILLIMETERS.

MAA06ARevC

**All dimensions are in  $\frac{\text{inches}}{\text{(millimeters)}}$**



## MAC06A 6-Lead MicroPak, 1.0mm Wide



## Notes:

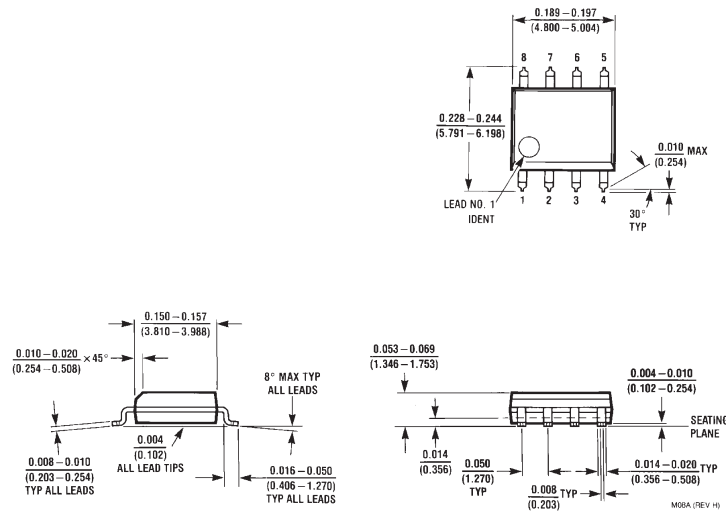
1. JEDEC PACKAGE REGISTRATION IS ANTICIPATED
2. DIMENSIONS ARE IN MILLIMETERS
3. DRAWING CONFORMS TO ASME Y14.5M-1994

MAC06ARevB

**All dimensions are in millimeters**

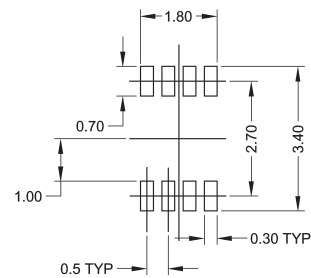
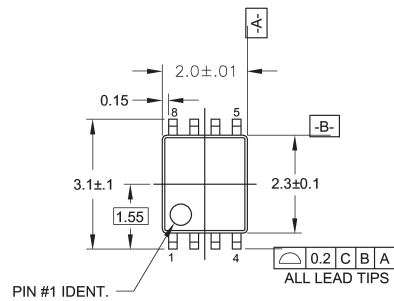
## Physical Dimensions

### M08A 8-Lead Small Outline Integrated Circuit (SOIC), JEDEC MS-012, 0.150" Narrow

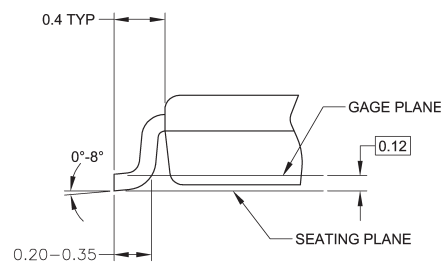
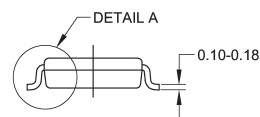
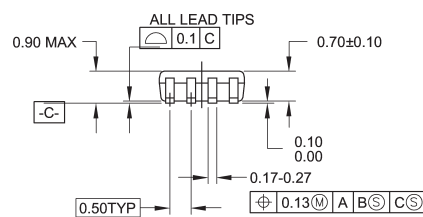


All dimensions are in millimeters

## MAB08A 8-Lead US8, JEDEC MO-187, Variation CA 3.1 mm Wide



## LAND PATTERN RECOMMENDATION



## DETAIL A

## NOTES:

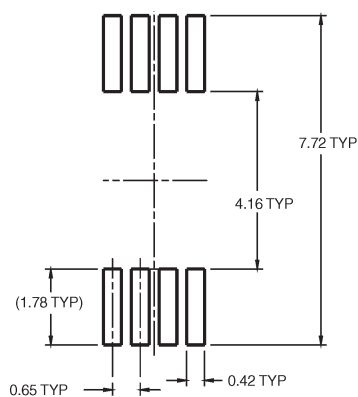
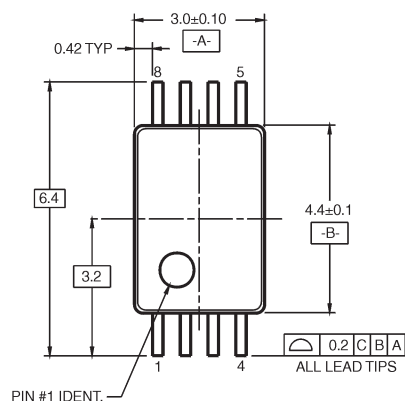
- A. CONFORMS TO JEDEC REGISTRATION MO-187
- B. DIMENSIONS ARE IN MILLIMETERS.
- C. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTRUSIONS.
- D. DIMENSIONS AND TOLERANCES PER ANSI Y14.5M, 1982.

MAB08AREVC

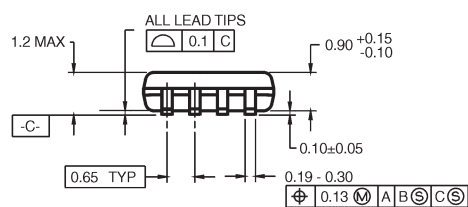
All dimensions are in millimeters

## Physical Dimensions

### MTC08 8-Lead Thin Shrink Small Outline Package (TSSOP), JEDEC MO-153, 4.4mm Wide



LAND PATTERN RECOMMENDATION

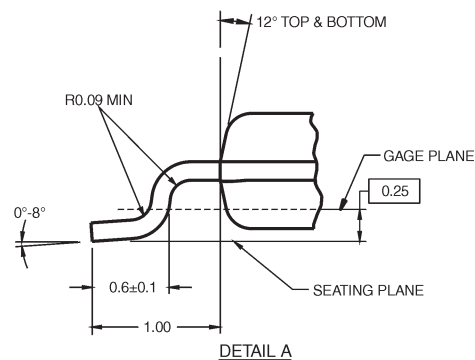
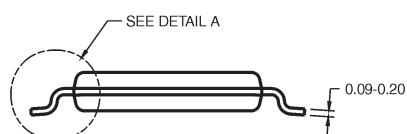


DIMENSIONS ARE IN MILLIMETERS

#### NOTES:

- CONFORMS TO JEDEC REGISTRATION MO-153, VARIATION AB, REF NOTE 6, DATE 7/93.
- DIMENSIONS ARE IN MILLIMETERS.
- DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTRUSIONS.
- DIMENSIONS AND TOLERANCES PER ANSI Y14.5M, 1982.

MTC08RevA1



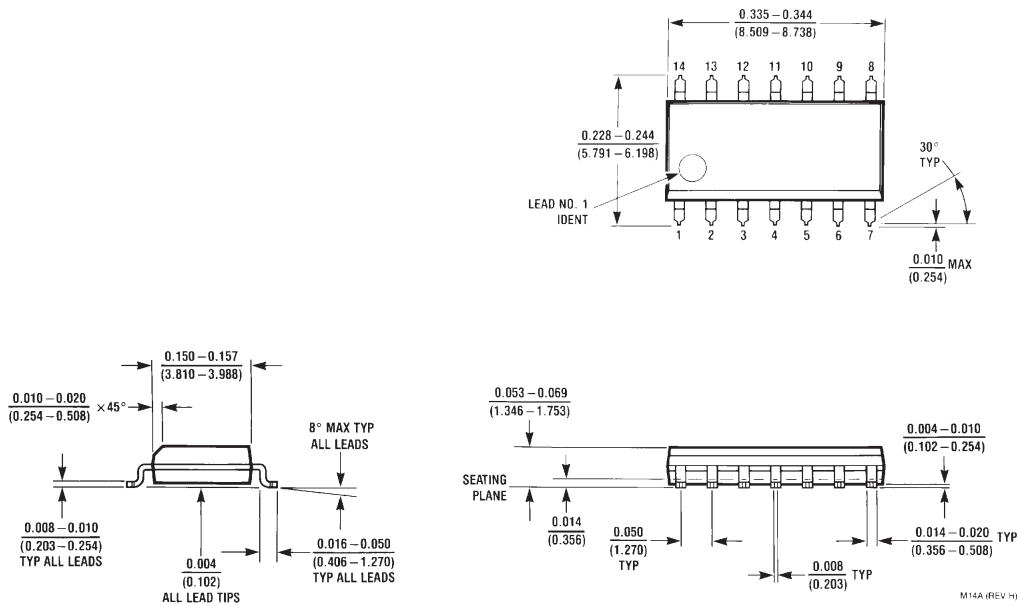
All dimensions are in millimeters



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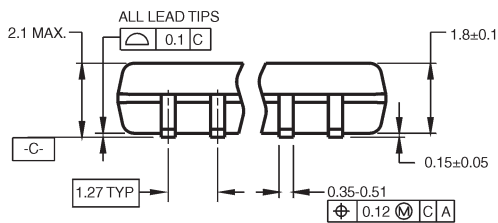
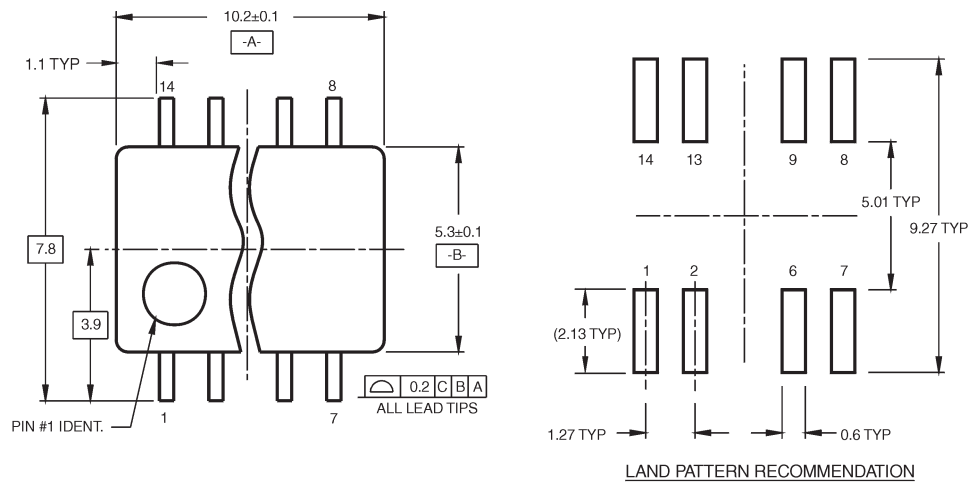
## Physical Dimensions

### M14A 14-Lead Small Outline Integrated Circuit (SOIC), JEDEC MS-012, 0.150" Narrow



All dimensions are in  $\frac{\text{inches}}{\text{(millimeters)}}$

# M14D 14-Lead Small Outline Package (SOP), EIAJ TYPE II, 5.3mm Wide

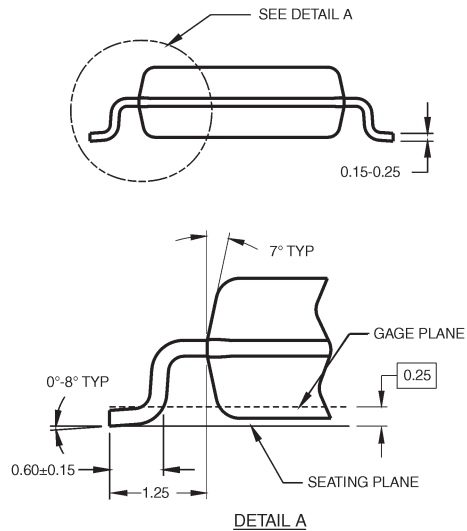


DIMENSIONS ARE IN MILLIMETERS

## NOTES:

- CONFORMS TO EIAJ EDR-7320 REGISTRATION, ESTABLISHED IN DECEMBER, 1998.
- DIMENSIONS ARE IN MILLIMETERS.
- DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTRUSIONS.

M14DRevB1

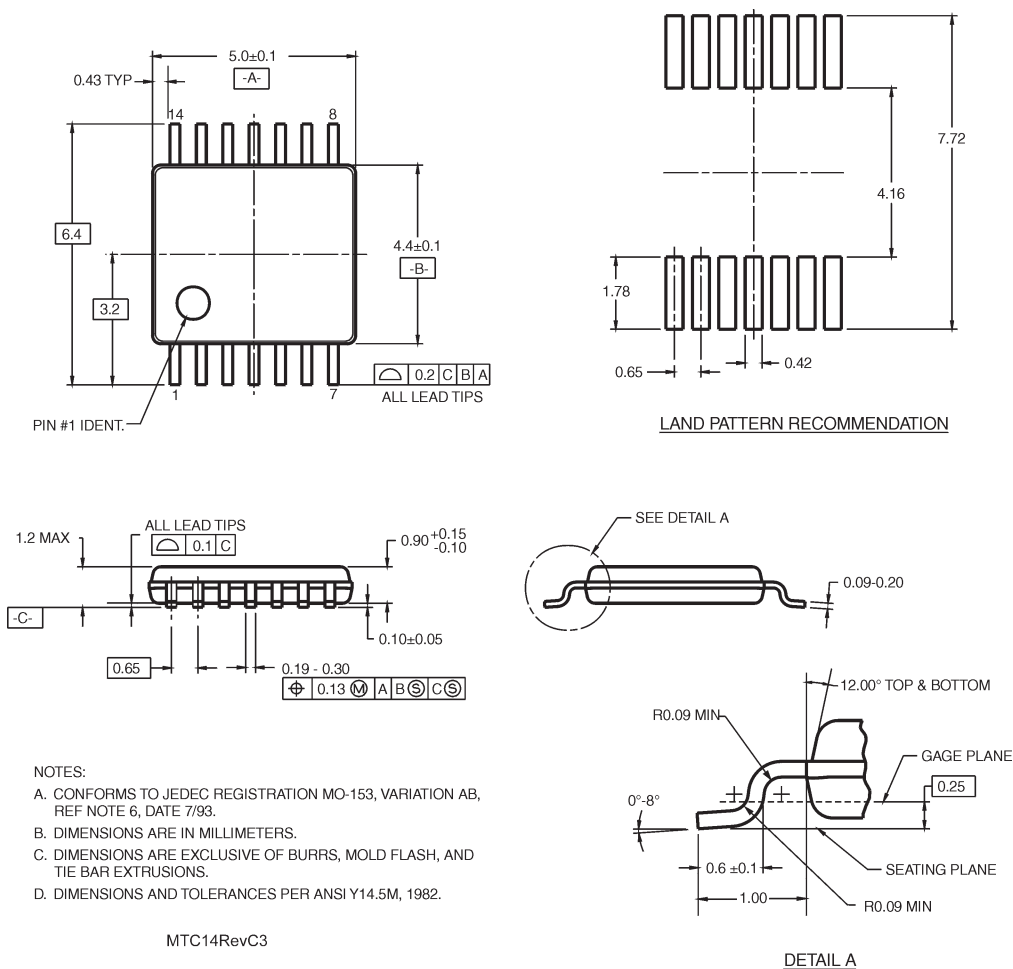


All dimensions are in millimeters



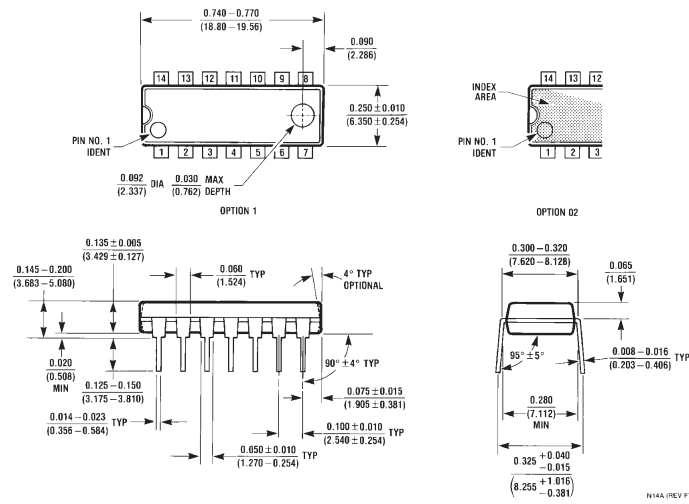
## Physical Dimensions

### MTC14 14-Lead Thin Shrink Small Outline Package (TSSOP), JEDEC MO-153, 4.4mm Wide



All dimensions are in millimeters

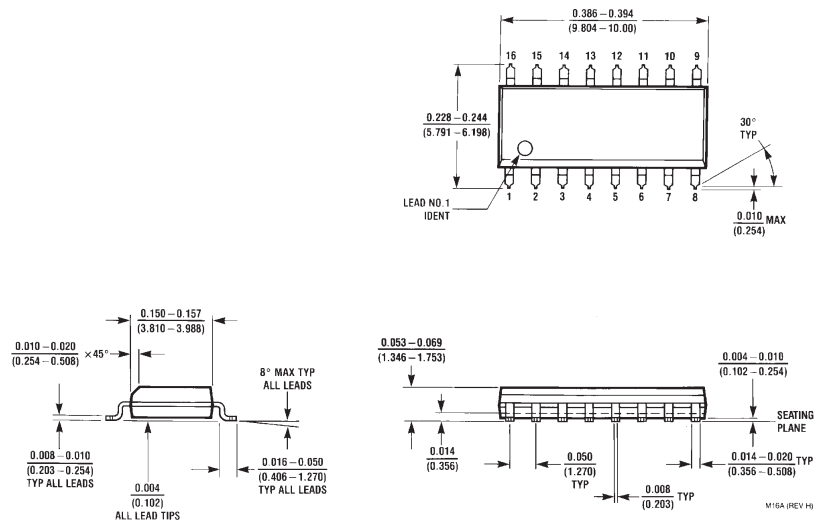
# N14A 14-Lead Plastic Dual-In-Line Package (PDIP), JEDEC MS-001, 0.300" Wide



All dimensions are in inches  
(millimeters)

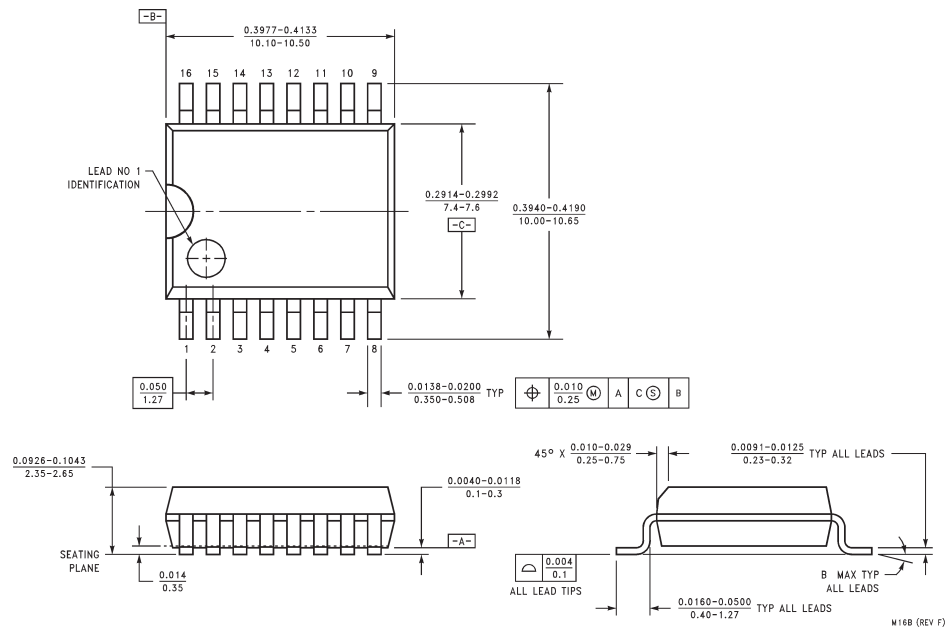
## Physical Dimensions

### M16A 16-Lead Small Outline Integrated Circuit (SOIC), JEDEC MS-012, 0.150" Narrow



All dimensions are in  $\frac{\text{inches}}{\text{(millimeters)}}$

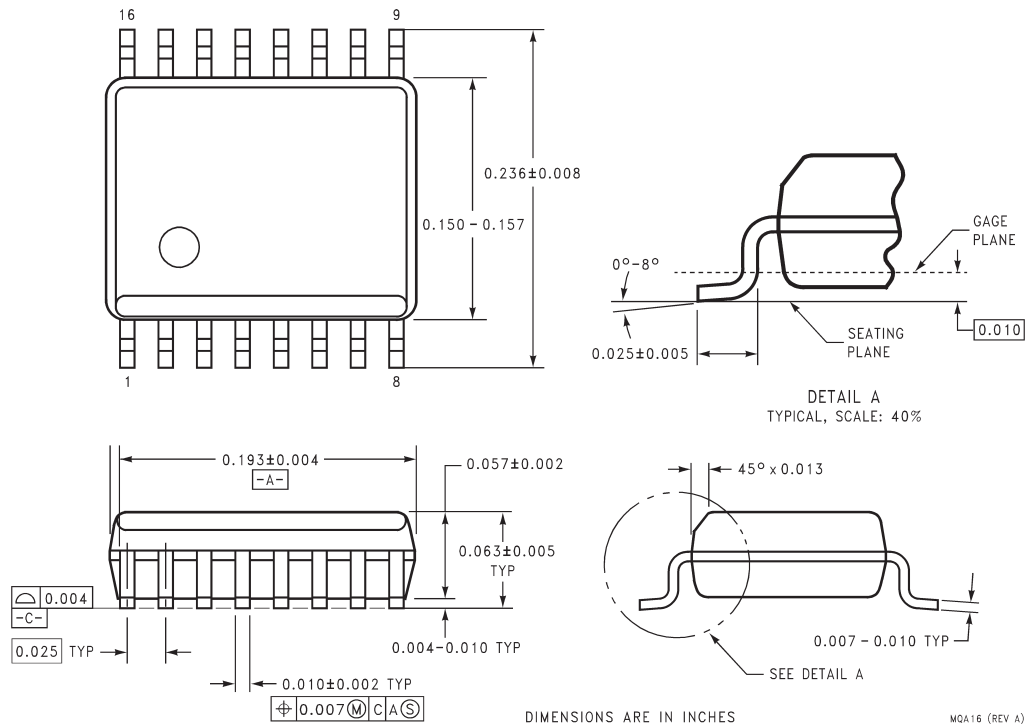
M16B	16-Lead Small Outline Intergrated Circuit (SOIC), JEDEC MS-013, 0.300" Wide
------	---



**All dimensions are in  $\frac{\text{inches}}{\text{(millimeters)}}$**



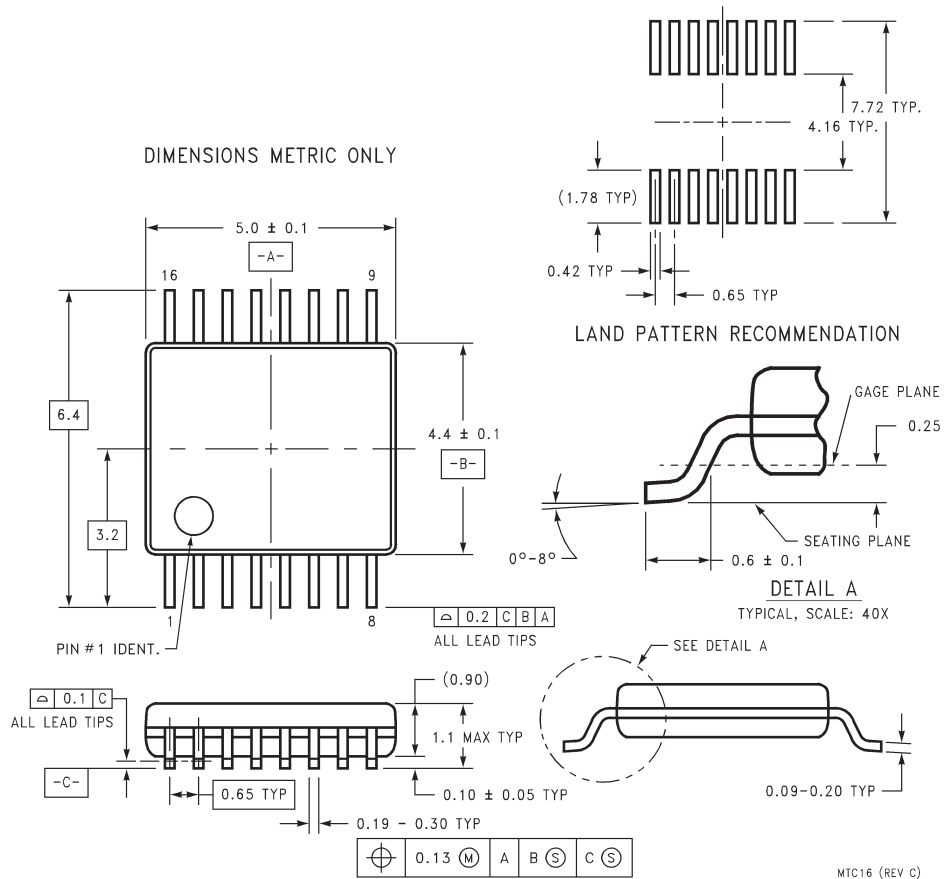
## MQA16 16-Lead Quarter Size Outline Package (QSOP), JEDEC MO-137, 0.150" Wide



All dimensions are in inches

## Physical Dimensions

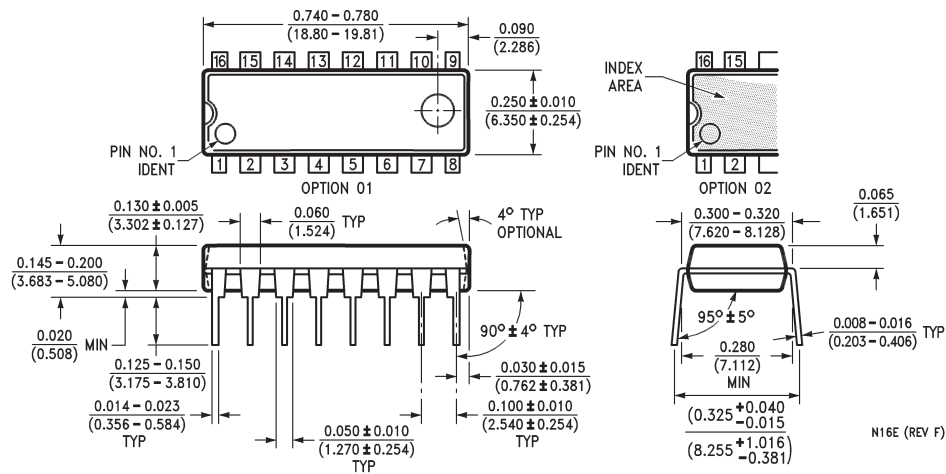
### MTC16 16-Lead Thin Shrink Small Outline Package (TSSOP), JEDEC MO-153, 4.4mm Wide



**All dimensions are in millimeters**



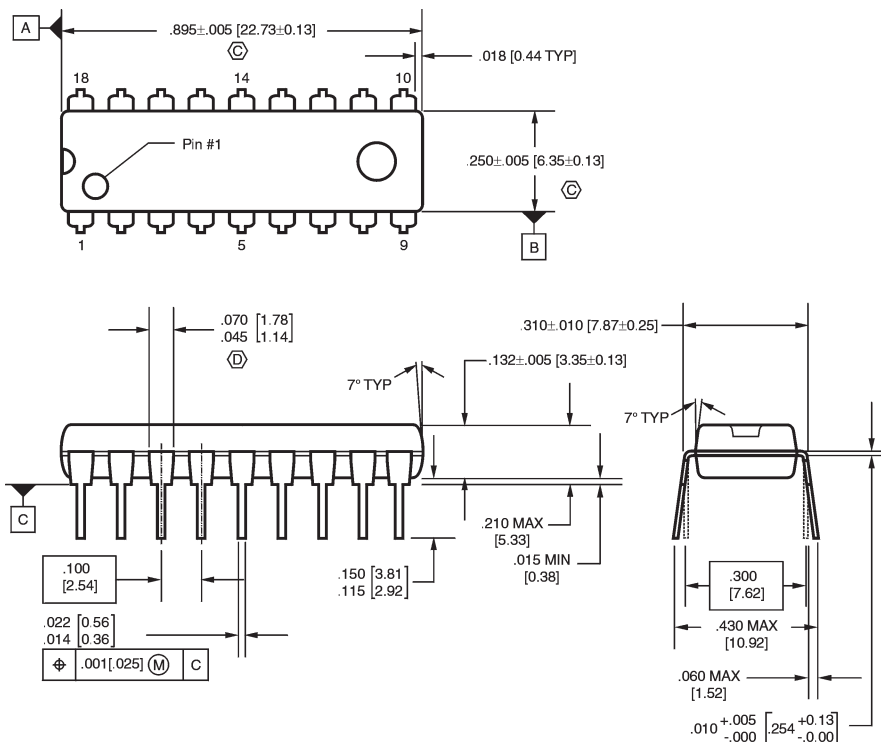
# N16E 16-Lead Plastic Dual-In-Line Package (PDIP), JEDEC MS-001, 0.300" Wide



All dimensions are in inches  
(millimeters)

## Physical Dimensions

### N18B 18-Lead Plastic Dual-In-Line Package (PDIP), JEDEC MS-001, 0.300" Wide

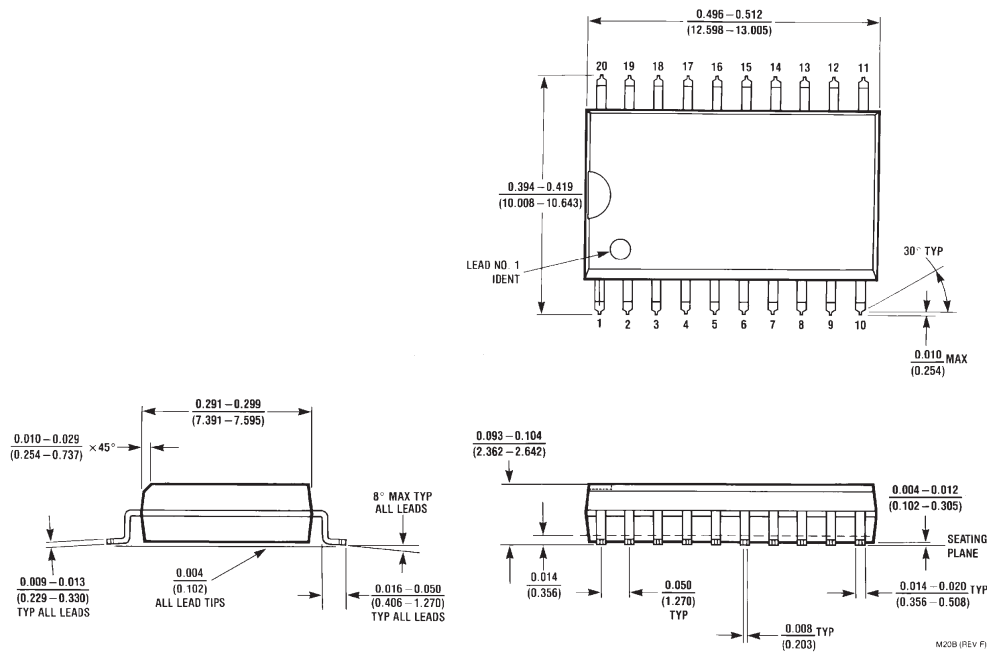


- NOTES:
- A. CONFORMS TO JEDEC REGISTRATION MS-001, VARIATIONS AC, DATED 6/1993.
  - B. CONTROLLING DIMENSIONS ARE IN INCHES. REFERENCE DIMENSIONS ARE IN MILLIMETERS.
  - C. DOES NOT INCLUDE MOLD FLASH OR PROTRUSIONS. MOLD FLASH OR PROTRUSIONS SHALL NOT EXCEED .010 INCHES OR 0.25MM.
  - D. DOES NOT INCLUDE DAMBAR PROTRUSIONS. DAMBAR PROTRUSIONS SHALL NOT EXCEED .010 INCHES OR 0.25MM.
  - E. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.

N18BrevA

**All dimensions are in inches [millimeters]**

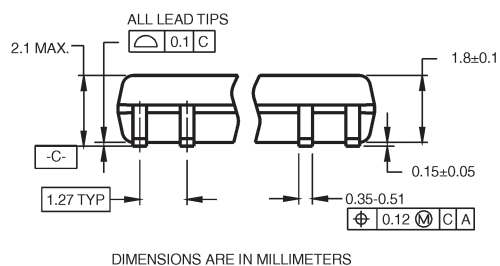
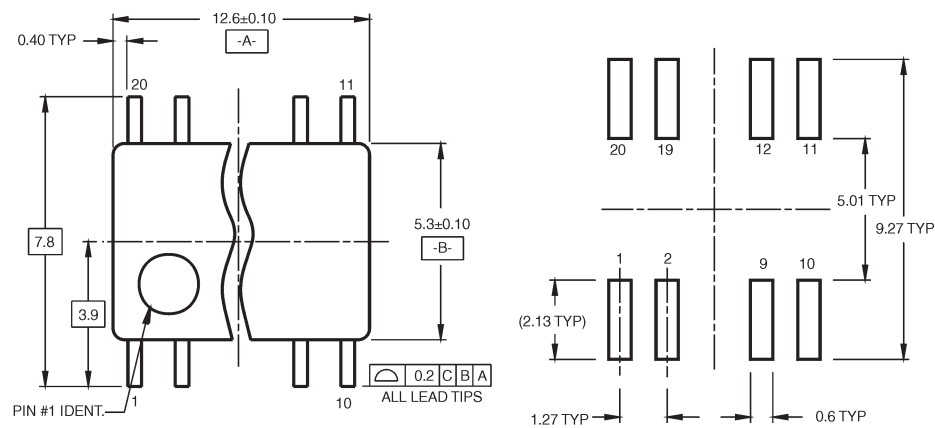
# M20B 20-Lead Small Outline Integrated Circuit (SOIC), JEDEC MS-013, 0.300" Wide



All dimensions are in inches  
(millimeters)

## Physical Dimensions

### M20D 20-Lead Small Outline Package (SOP), EIAJ TYPE II, 5.3mm Wide

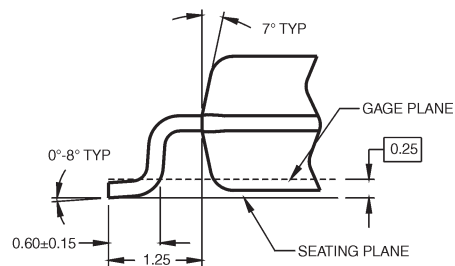


DIMENSIONS ARE IN MILLIMETERS

#### NOTES:

- CONFORMS TO EIAJ EDR-7320 REGISTRATION, ESTABLISHED IN DECEMBER, 1998.
- DIMENSIONS ARE IN MILLIMETERS.
- DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTRUSIONS.

M20DRevB1



All dimensions are in millimeters

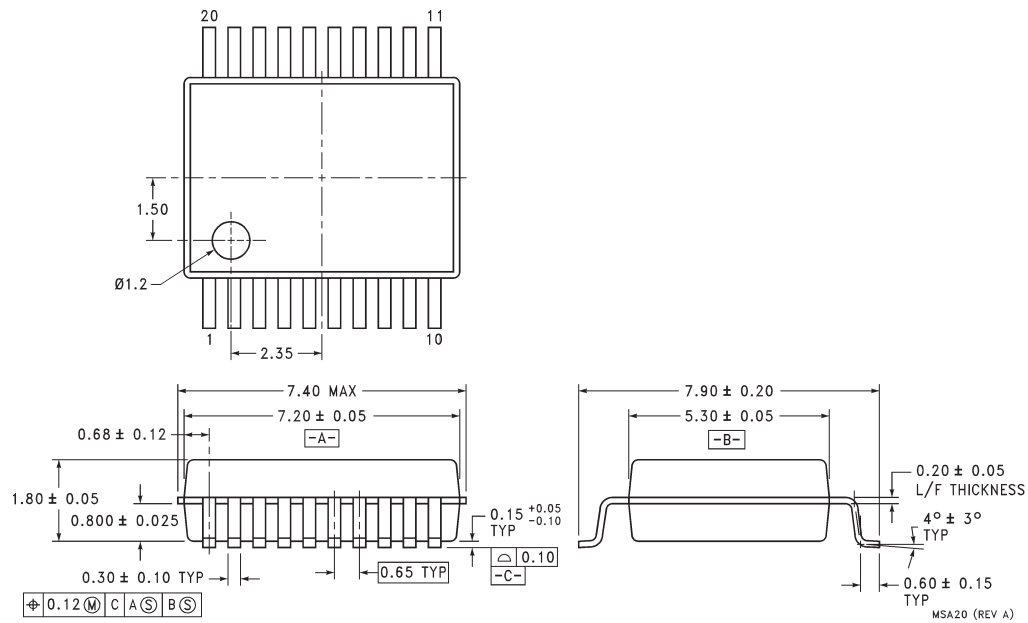
See pages 42 and 43 for ordering information



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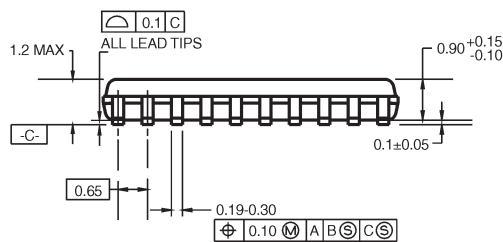
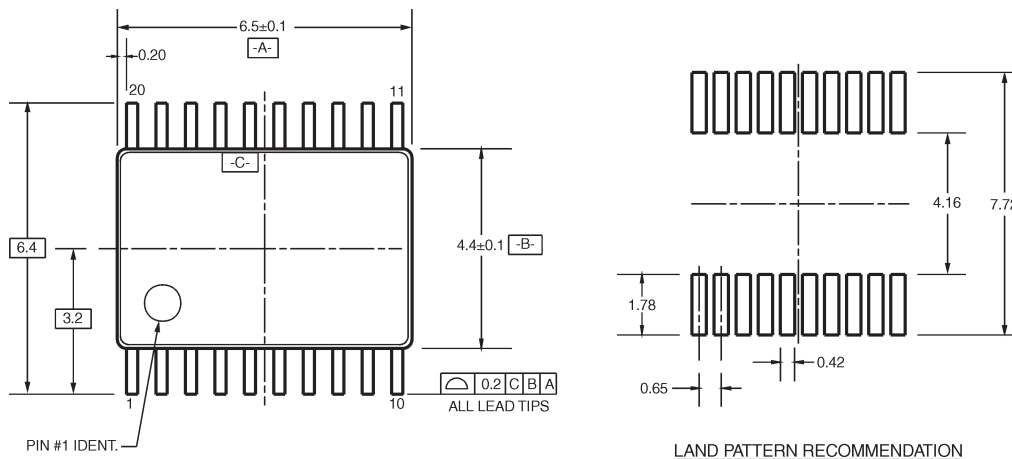
## Physical Dimensions

MSA20 20-Lead Shrink Small Outline Package (SSOP), JEDEC MO-150, 5.3mm Wide



**All dimensions are in millimeters**

# MTC20 20-Lead Thin Shrink Small Outline Package (TSSOP), JEDEC MO-153, 4.4mm Wide

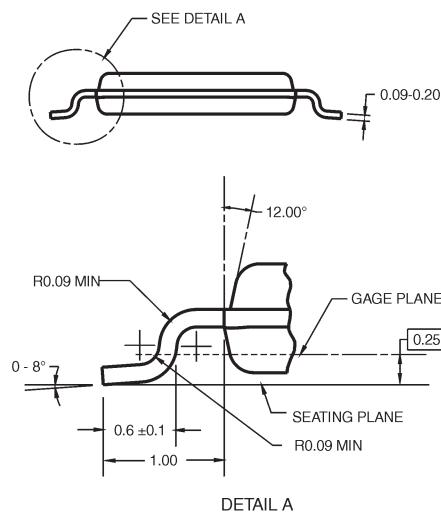


DIMENSIONS ARE IN MILLIMETERS

## NOTES:

- CONFORMS TO JEDEC REGISTRATION MO-153, VARIATION AC, REF NOTE 6, DATE 7/93.
- DIMENSIONS ARE IN MILLIMETERS.
- DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTRUSIONS.
- DIMENSIONS AND TOLERANCES PER ANSI Y14.5M, 1982.

MTC20RevD1

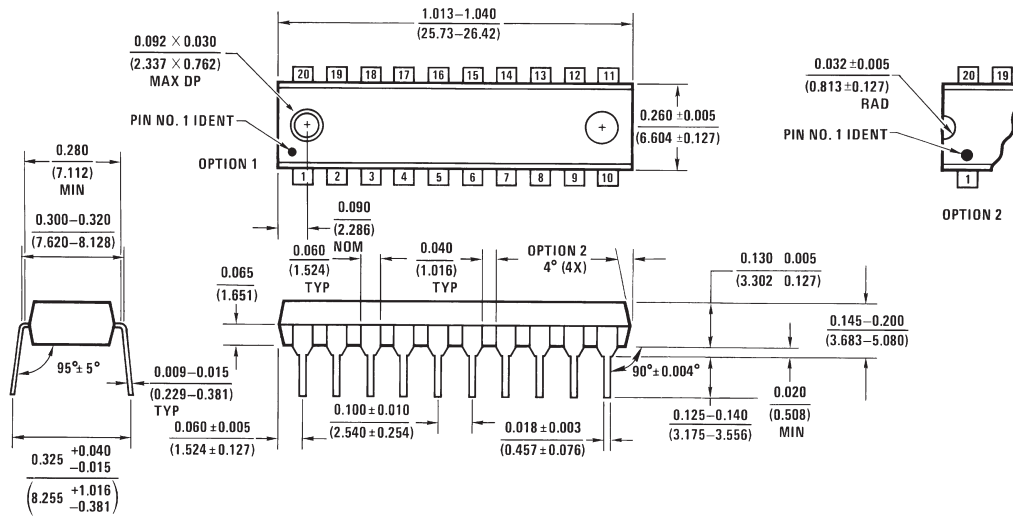


All dimensions are in millimeters



## Physical Dimensions

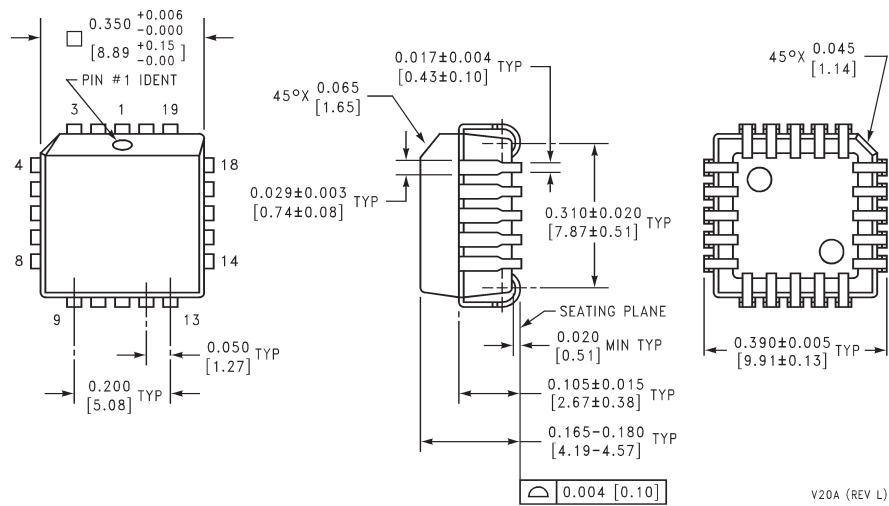
N20A 20-Lead Plastic Dual-In-Line Package (PDIP), JEDEC MS-001, 0.300" Wide



N20A (REV G)

**All dimensions are in  $\frac{\text{inches}}{\text{(millimeters)}}$**

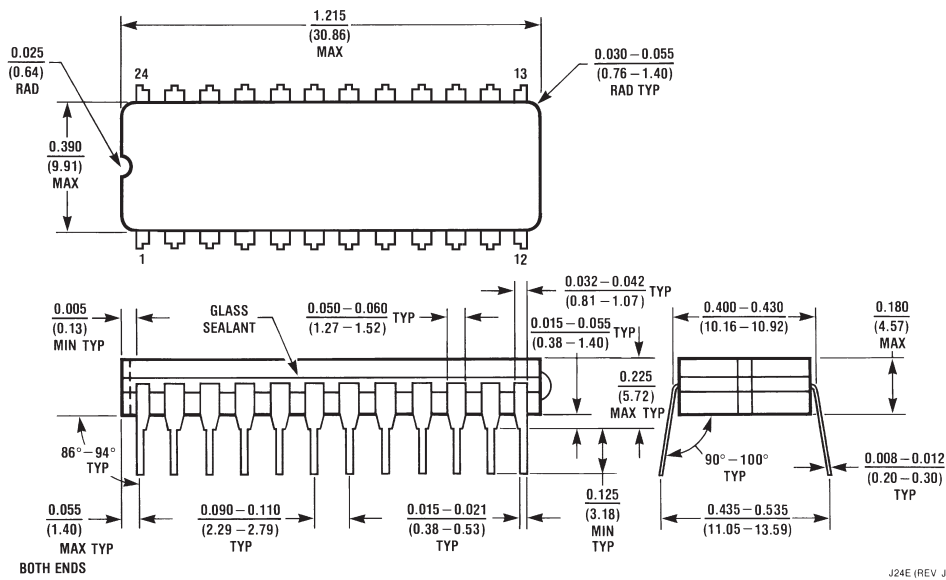
# V20A 20-Lead Plastic Lead Chip Carrier (PLCC), JEDEC MO-047, 0.350" Square



All dimensions are in inches  
(millimeters)

## Physical Dimensions

J024E 24-Lead, Ceramic Dual-In-Line Package (CDIP), 0.100" Pitch, 0.400" Wide



**All dimensions are in  $\frac{\text{inches}}{\text{(millimeters)}}$**

## M24B

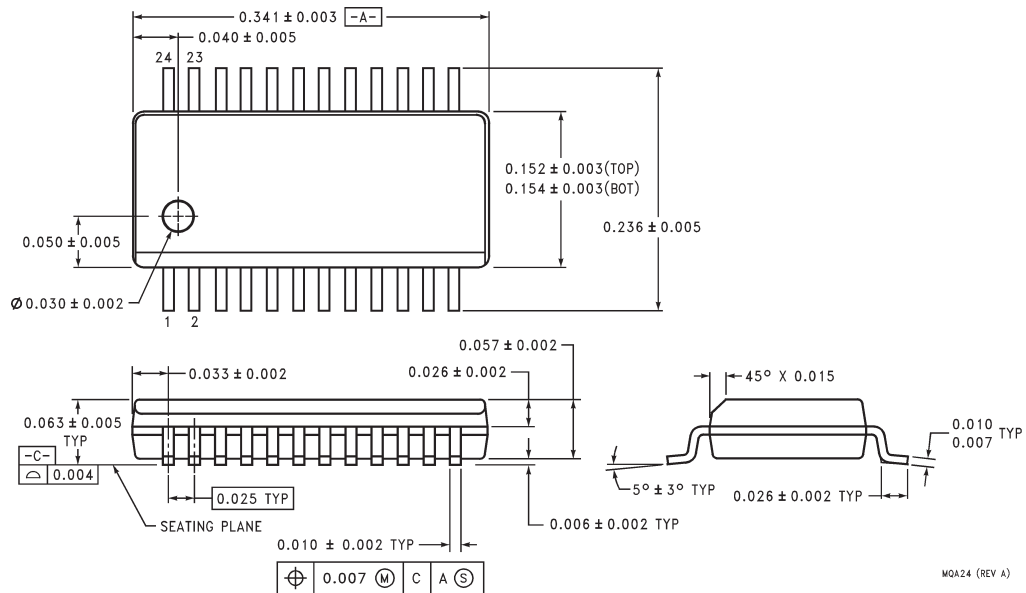
24-Lead Small Outline Integrated Circuit (SOIC), JEDEC MS-013, 0.300" Wide



**inches**  
**(millimeters)**

## Physical Dimensions

### MQA24 24-Lead Quarter Size Outline Package (QSOP), JEDEC MO-137, 0.150" Wide



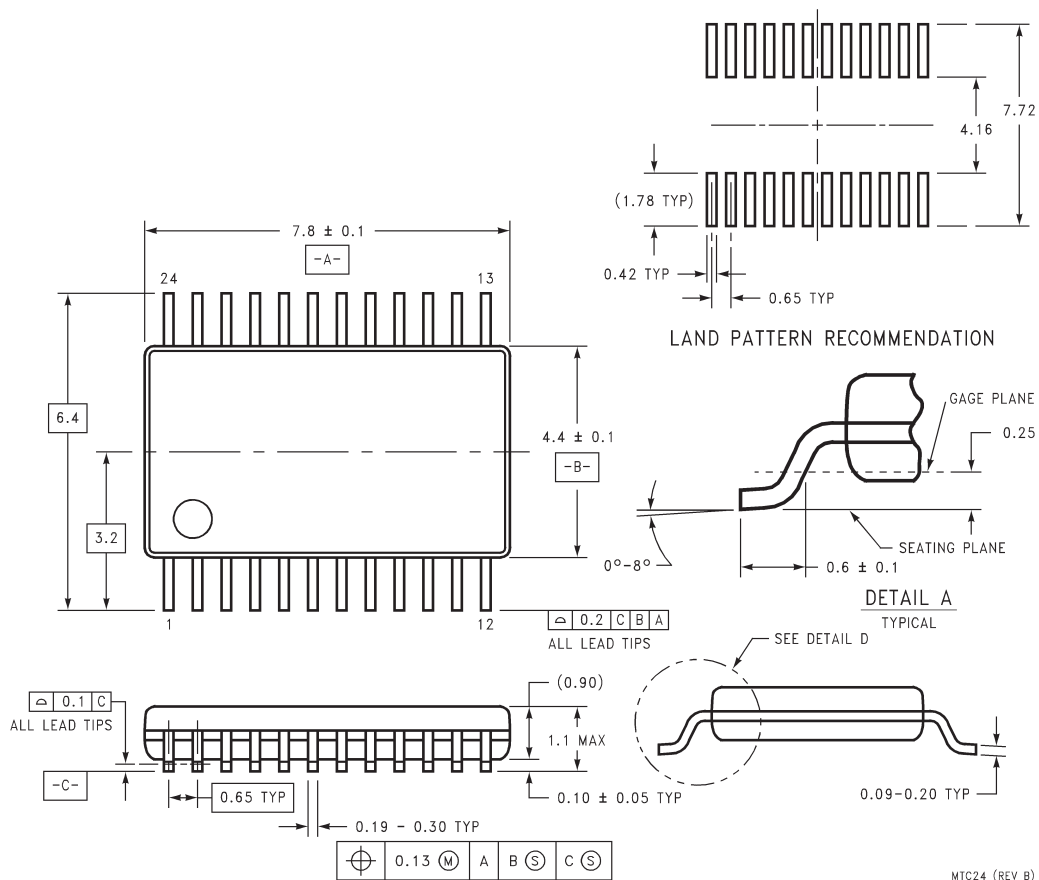
All dimensions are in inches

See pages 42 and 43 for ordering information



## Physical Dimensions

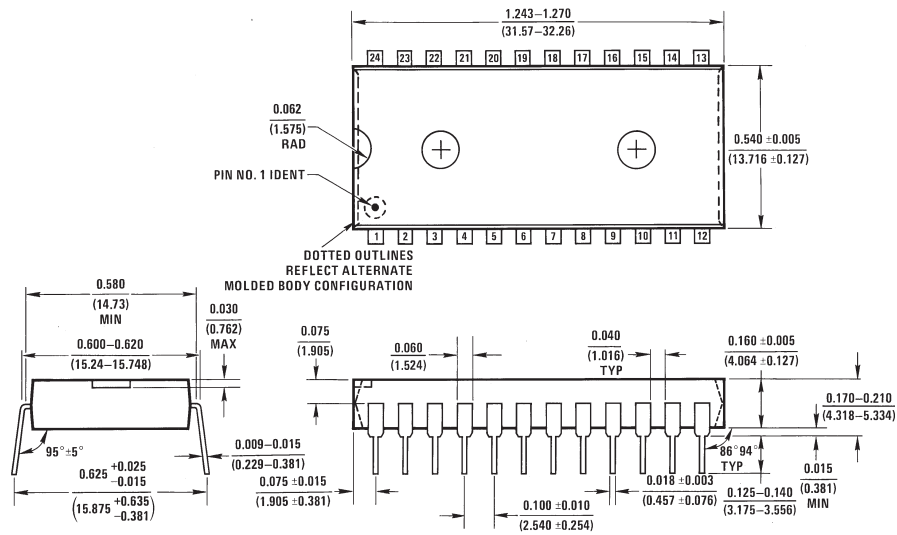
MTC24 24-Lead Thin Shrink Small Outline Package (TSSOP), JEDEC MO-153,  
4.4mm Wide



MTC24 (REV B)

All dimensions are in millimeters

# N24A 24-Lead Plastic Dual-In-Line Package (PDIP), JEDEC MS-010, 0.600" Wide



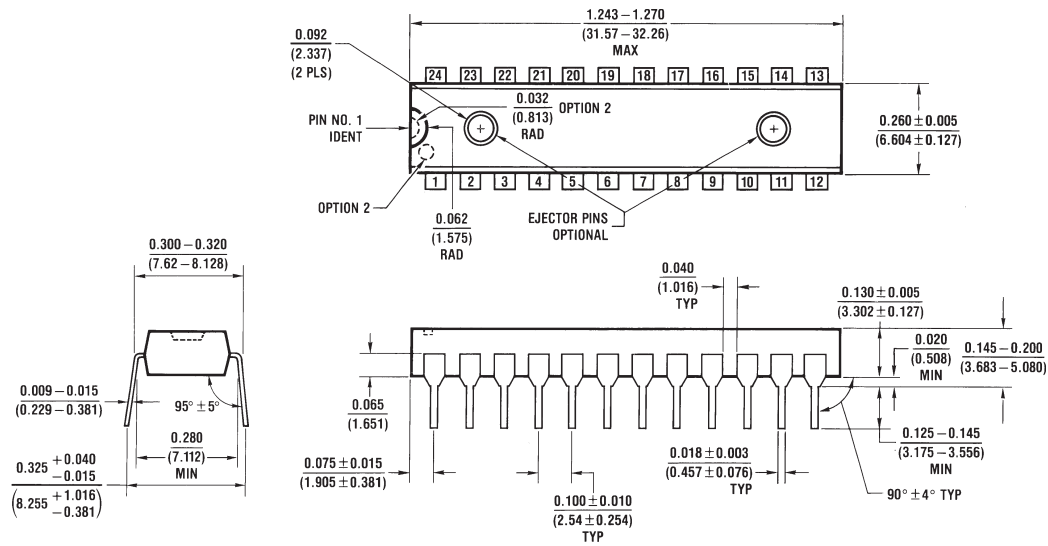
N24A (REV E)

All dimensions are in  $\frac{\text{inches}}{\text{(millimeters)}}$



## Physical Dimensions

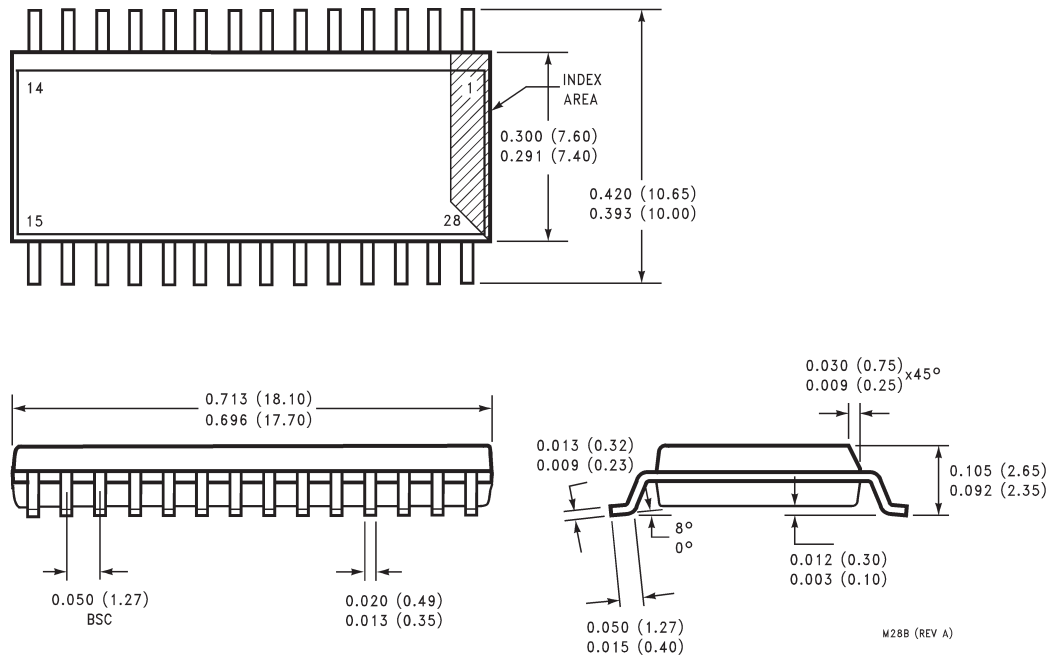
### N24C 24-Lead Plastic Dual-In-Line Package (PDIP), JEDEC MS-001, 0.300" Wide



N24C (REV F)

All dimensions are in  $\frac{\text{inches}}{\text{(millimeters)}}$

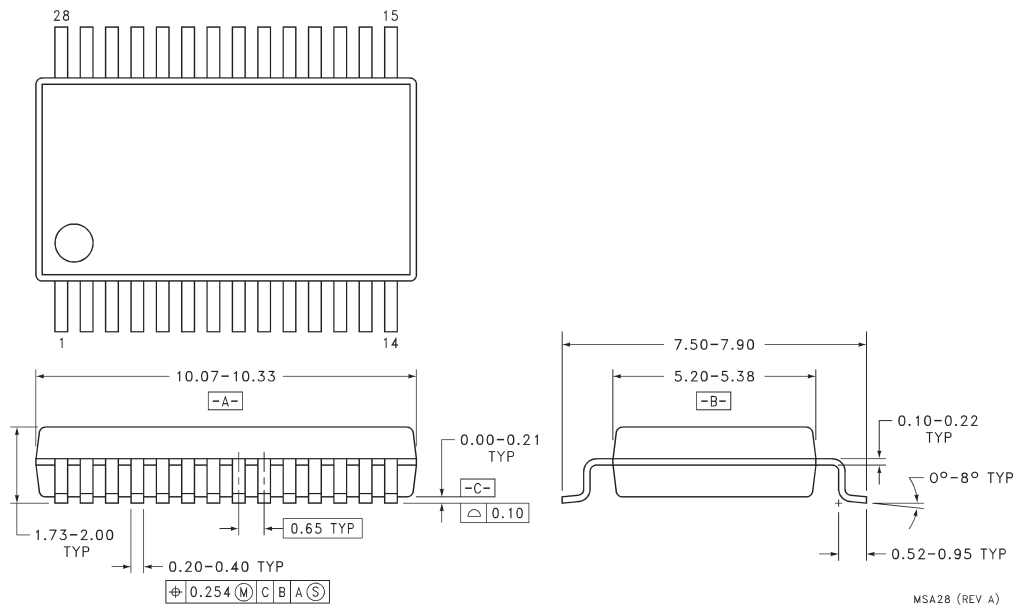
M28B 28-Lead Small Outline Integrated Circuit (SOIC), JEDEC MS-013, 0.300" Wide



All dimensions are in inches (millimeters)

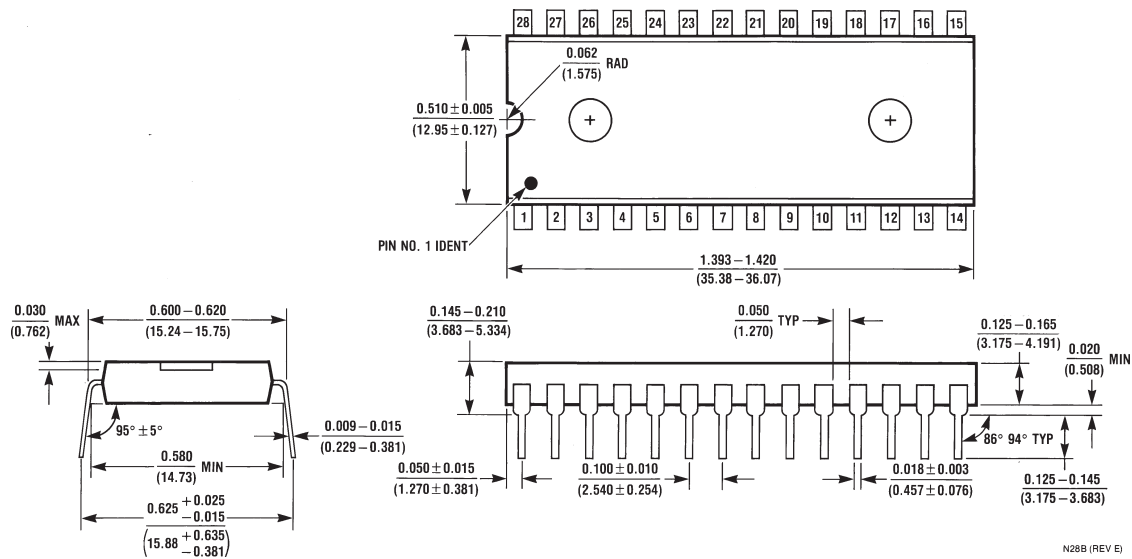
## Physical Dimensions

### MSA28 28-Lead Shrink Small Outline Package (SSOP), JEDEC MO-150, 5.3mm Wide



All dimensions are in millimeters

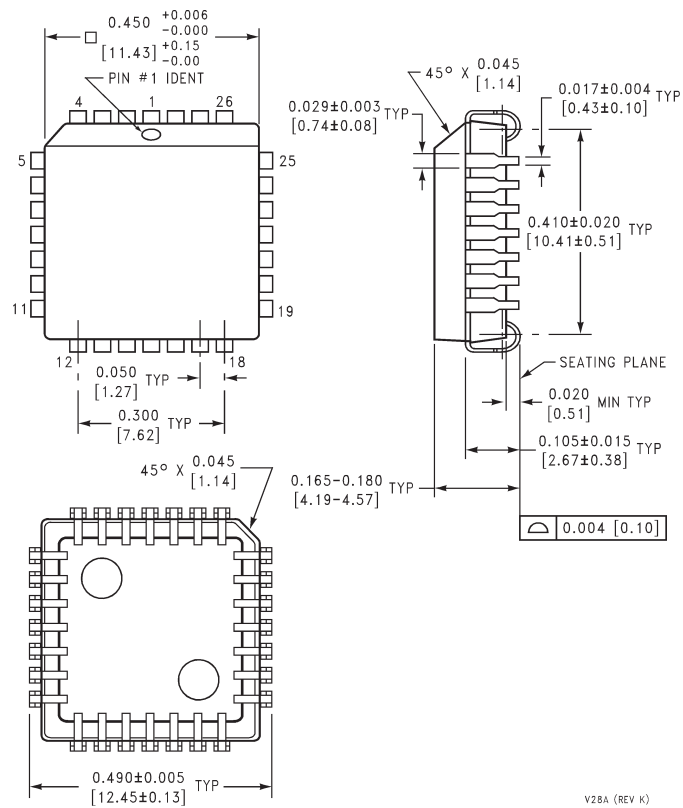
# N28B 28-Lead Plastic Dual-In-Line Package (PDIP), JEDEC MS-010, 0.600" Wide



All dimensions are in inches  
(millimeters)

## Physical Dimensions

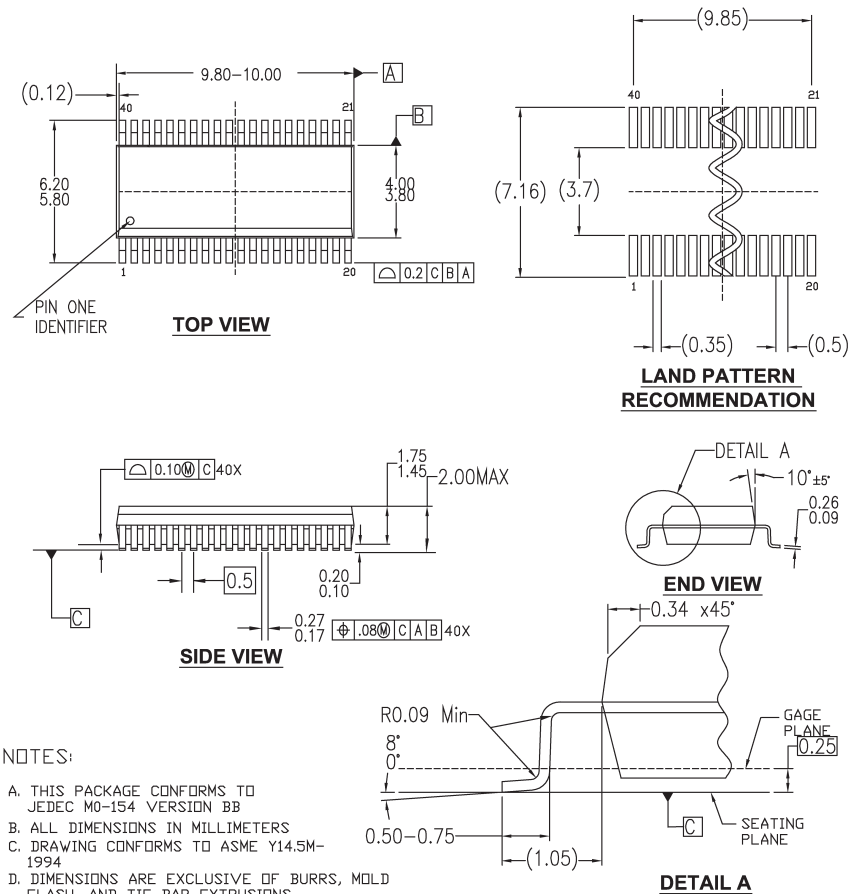
### V28A 28-Lead Plastic Lead Chip Carrier (PLCC), JEDEC MO-047, 0.450" Square



V28A (REV K)

All dimensions are in  $\frac{\text{inches}}{\text{(millimeters)}}$

## MQA40A 40-Lead Quarter Size Outline Package (QSOP), JEDEC MO-154, 0.150" Wide

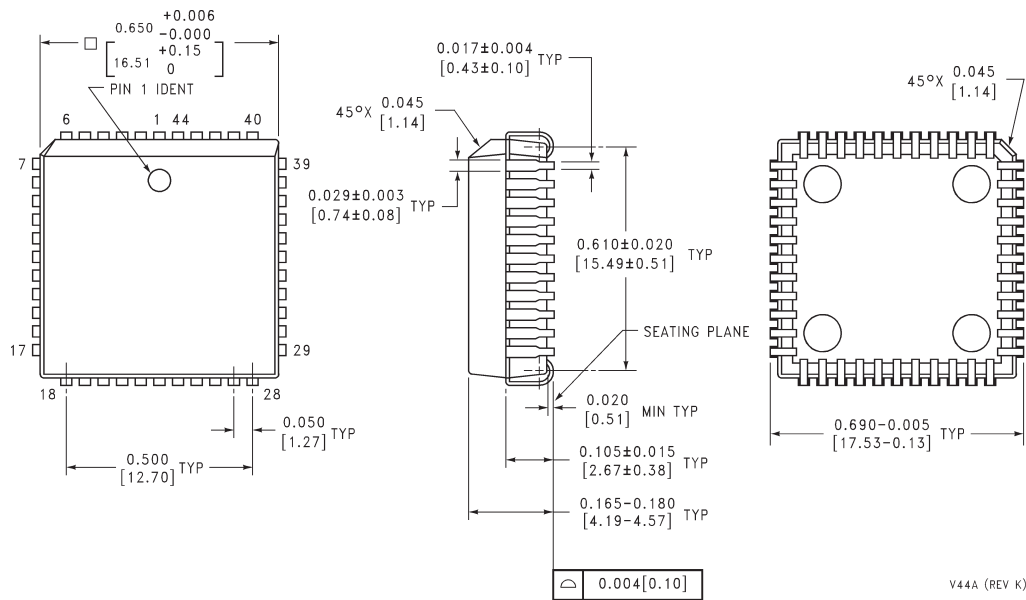


MQA40AREVA

All dimensions are in millimeters

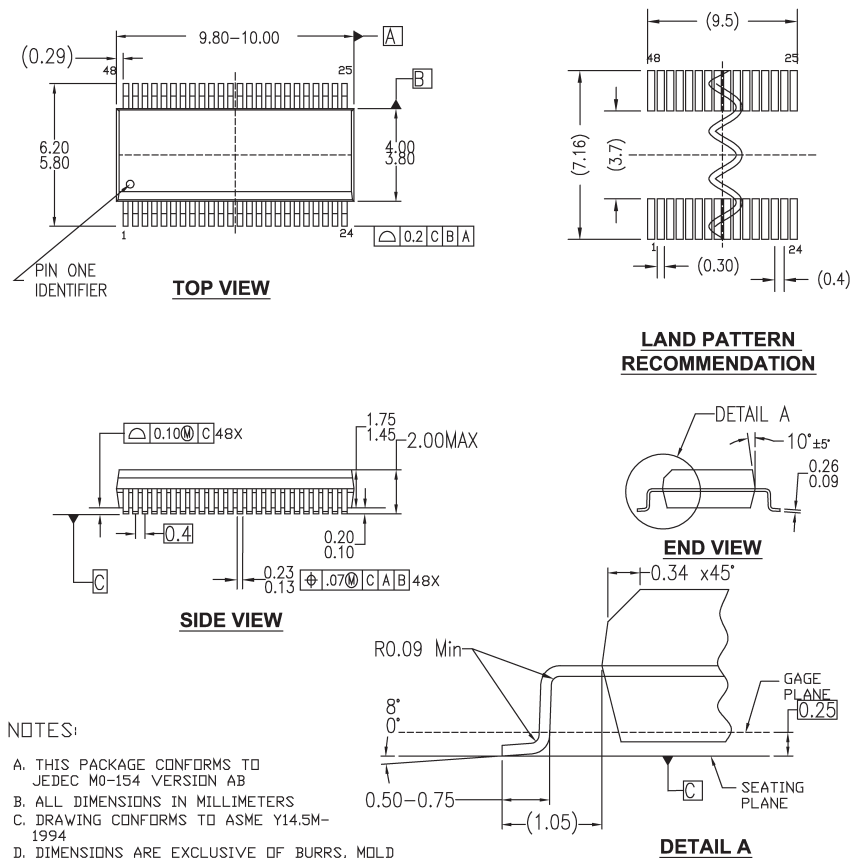
## Physical Dimensions

### V44A 44-Lead Plastic Lead Chip Carrier (PLCC), JEDEC MO-047, 0.650" Square



All dimensions are in inches  
(millimeters)

**MQA48A** 48-Lead Quarter Size Very Small Outline Package (QVSOP), JEDEC MO-154,  
0.150" Wide



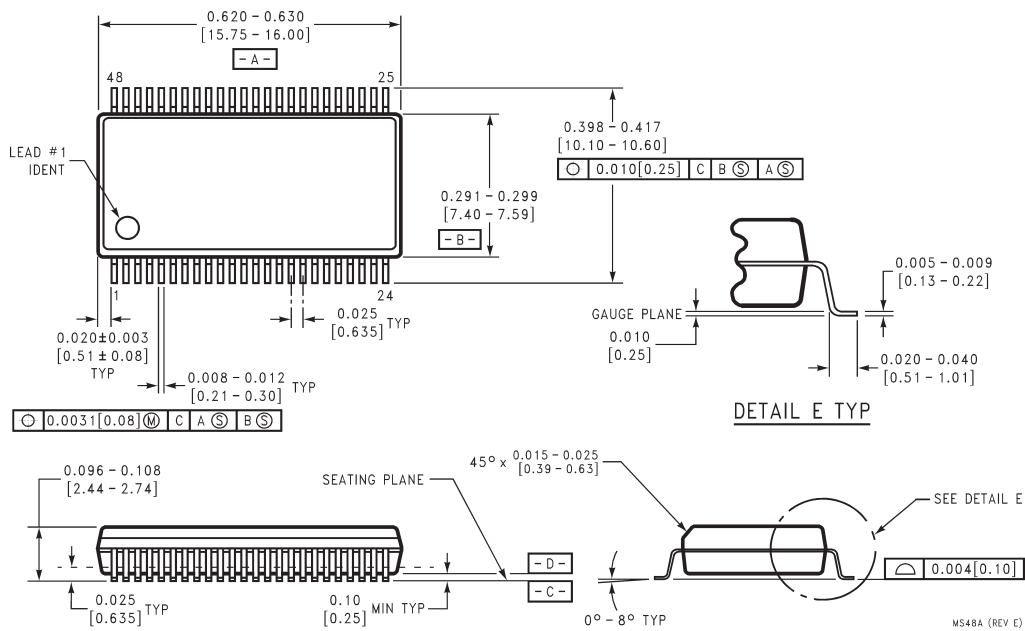
MQA48AREVA

**All dimensions are in millimeters**



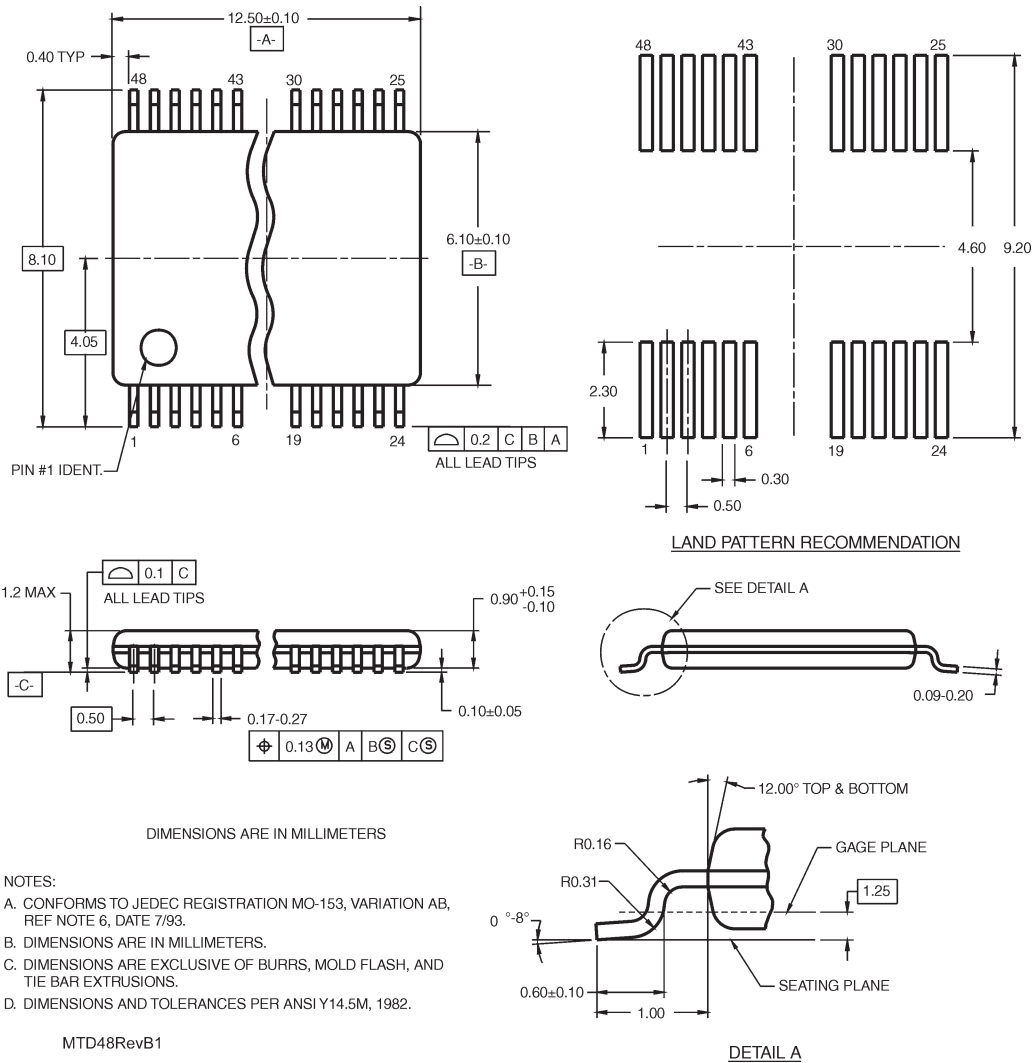
## Physical Dimensions

### MS48A 48-Lead Small Shrink Outline Package (SSOP), JEDEC MO-118, 0.300" Wide



All dimensions are in  $\frac{\text{inches}}{\text{(millimeters)}}$

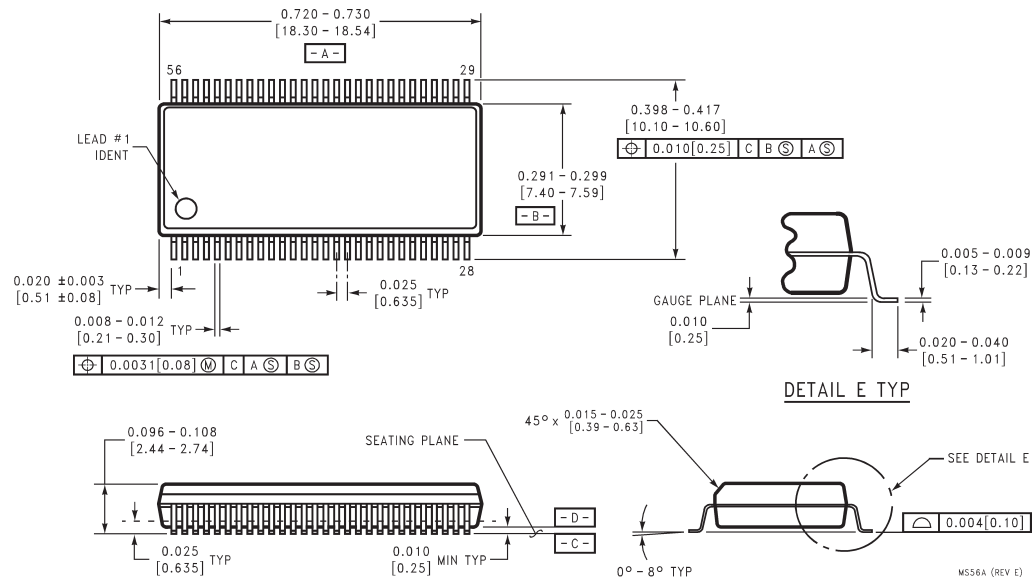
# MTD48 48-Lead Thin Shrink Small Outline Package (TSSOP), JEDEC MO-153, 6.1mm Wide



**All dimensions are in millimeters**

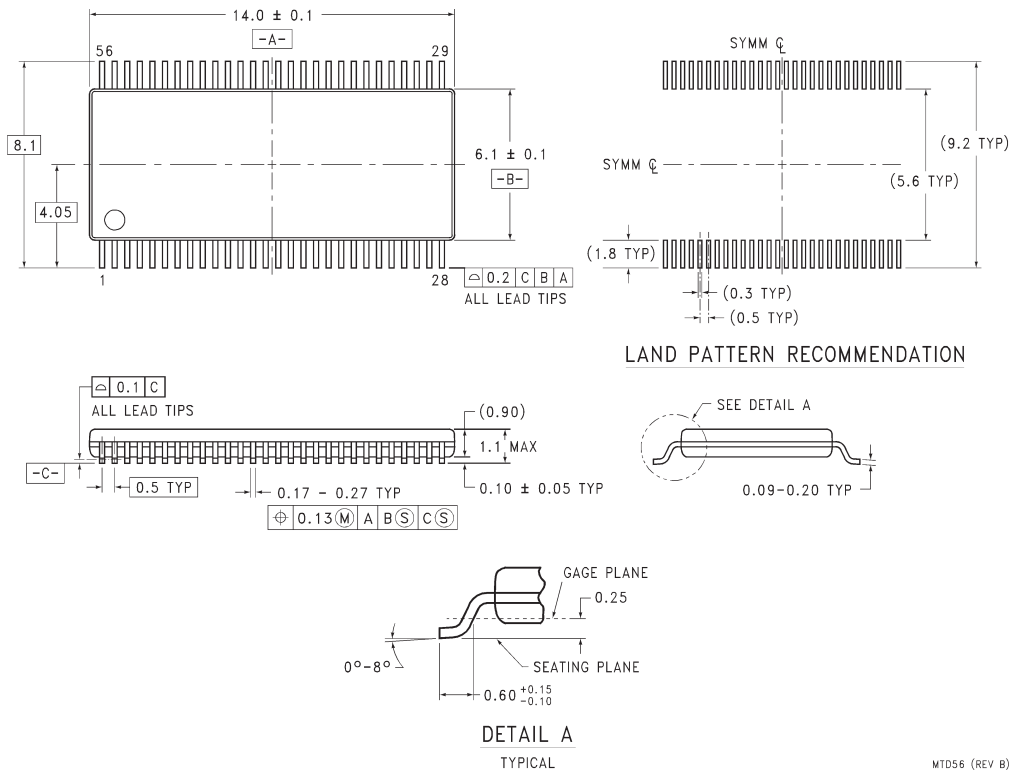
## Physical Dimensions

## MS56A 56-Lead Shrink Small Outline Package (SSOP), JEDEC MO-118, 0.300" Wide



**All dimensions are in  $\frac{\text{inches}}{\text{(millimeters)}}$**

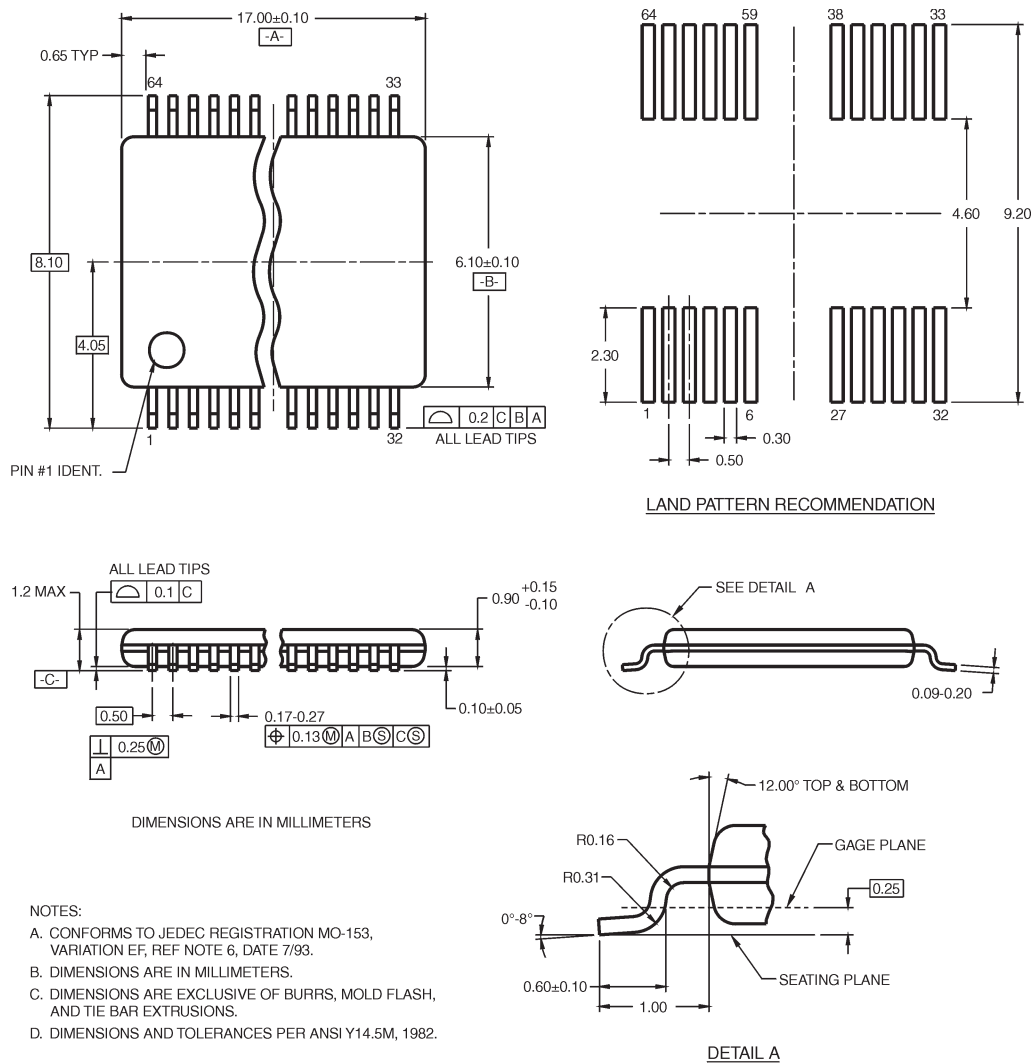
MTD56      56-Lead Thin Shrink Small Outline Package (TSSOP), JEDEC MO-153,  
6.1mm Wide



All dimensions are in millimeters

## Physical Dimensions

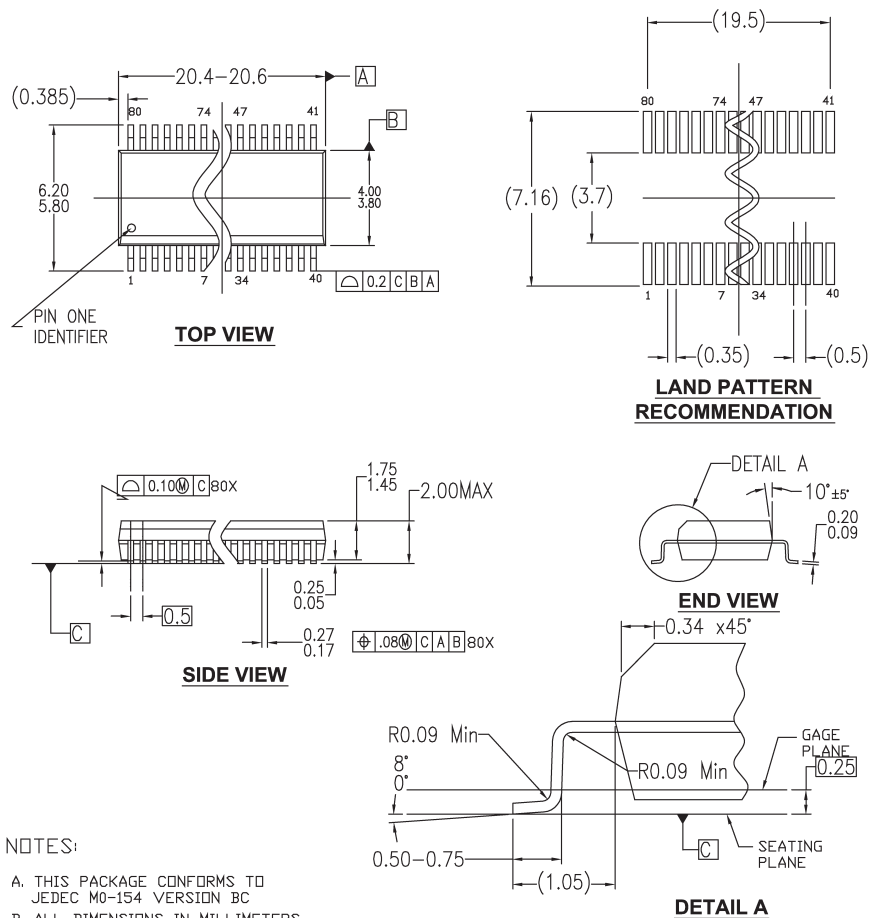
MTD64 64-Lead Thin Shrink Small Outline Package (TSSOP), JEDEC MO-153,  
6.1mm Wide



MTD64REVB

**All dimensions are in millimeters**

## MQA80A 80-Lead, QVSOP, JEDEC MO-154, 0.150" Wide



## NOTES:

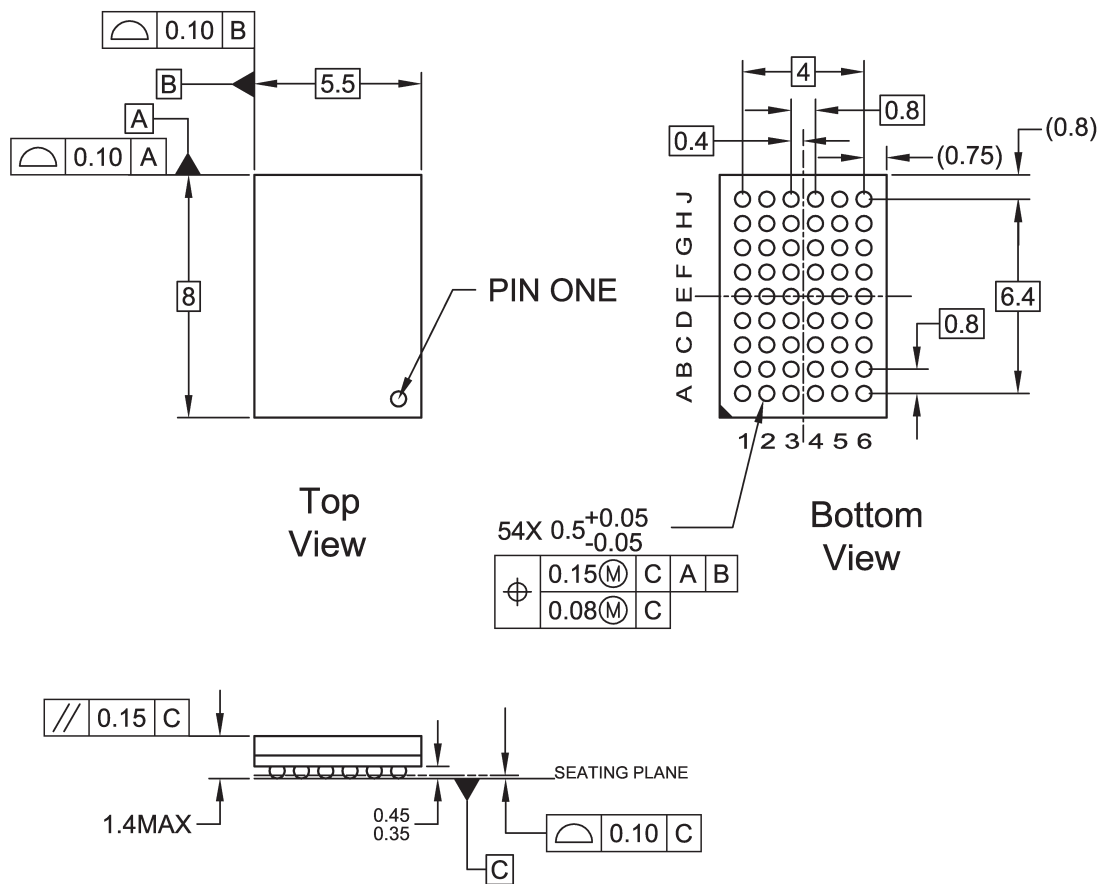
- THIS PACKAGE CONFORMS TO JEDEC MO-154 VERSION BC
- ALL DIMENSIONS IN MILLIMETERS
- DRAWING CONFORMS TO ASME Y14.5M-1994
- DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTRUSIONS.

MQA80AREVA

All dimensions are in millimeters

## Physical Dimensions

BGA54A 54-Ball Fine-Pitch Ball Grid Array (FBGA), JEDEC MO-205, 5.5mm Wide



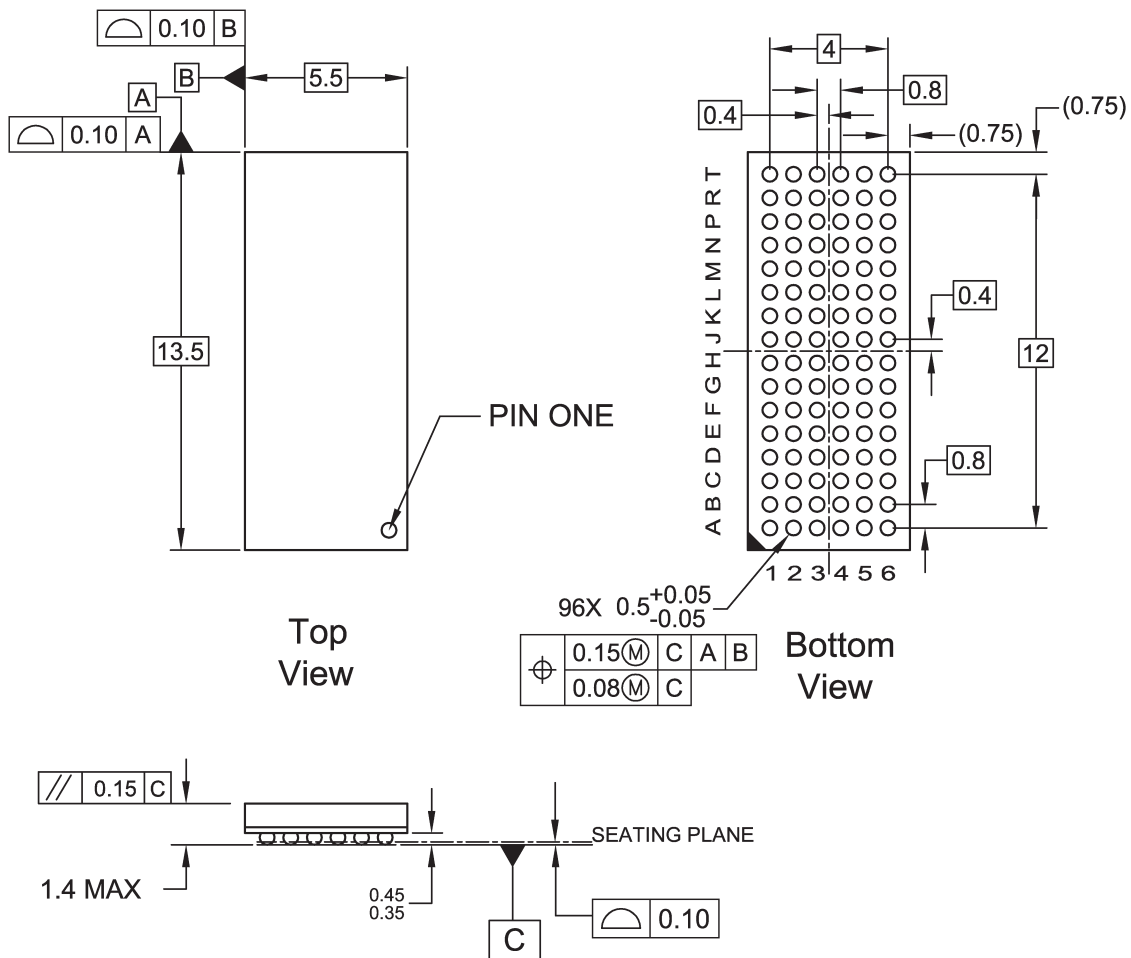
### NOTES:

- A. THIS PACKAGE CONFORMS TO JEDEC M0-205
- B. ALL DIMENSIONS IN MILLIMETERS
- C. LAND PATTERN RECOMMENDATION: NSMD (Non Solder Mask Defined)  
.35MM DIA PADS WITH A SOLDERMASK OPENING OF .45MM CONCENTRIC TO PADS
- D. DRAWING CONFORMS TO ASME Y14.5M-1994

BGA54ArevD

**All dimensions are in millimeters**

## BGA96A 96-Ball Fine-Pitch Ball Grid Array (FBGA), JEDEC MO-205, 5.5mm Wide



## NOTES:

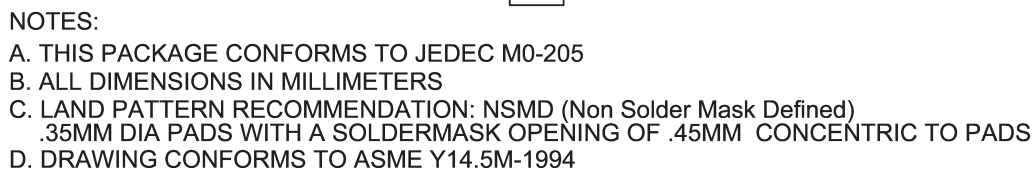
- A. THIS PACKAGE CONFORMS TO JEDEC M0-205
- B. ALL DIMENSIONS IN MILLIMETERS
- C. LAND PATTERN RECOMMENDATION: NSMD (Non Solder Mask Defined)  
.35MM DIA PADS WITH A SOLDERMASK OPENING OF .45MM CONCENTRIC TO PADS
- D. DRAWING CONFORMS TO ASME Y14.5M-1994

BGA96ArevE

**All dimensions are in millimeters**



## BGA114A 114-Ball Fine-Pitch Ball Grid Array (FBGA), JEDEC MO-205, 5.5mm Wide



**All dimensions are in millimeters**

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