

M74HC SERIES

RECOMMENDED OPERATING CONDITIONS

Symbol	Parameter	Value	Unit
V _{CC}	Supply Voltage	2 to 6	V
V _I	Input Voltage	0 to V _{CC}	V
T _A	Operating Temperature (74 Series)	– 40 to 85	°C

Type		Description	Package
M74HC00	H	Quad 2-Input NAND Gate	DIL14/SO14
M74HCT00	H	Quad 2-Input NAND Gate	DIL14/SO14
M74HC02	H	Quad 2-Input NOR Gate	DIL14/SO14
M74HCT02	H	Quad 2-Input NOR Gate	DIL14/SO14
M74HC03	H	Quad 2-Input NAND (Open Drain)	DIL14/SO14
M74HC04	H	Hex Inverter	DIL14/SO14
M74HCT04	H	Hex Inverter	DIL14/SO14
M74HCU04	H	Hex Inverter (Single Stage)	DIL14/SO14
M74HC05	H	Hex Inverter	DIL14/SO14
M74HC07	H	Hex Buffer	DIL14/SO14
M74HC08	H	Quad 2-Input NAND Gate	DIL14/SO14
M74HCT08	H	Quad 2-Input AND Gate	DIL14/SO14
M74HC09	H	Quad 2-Input AND Gate (open drain)	DIL14/SO14
M74HC10	H	Triple 3-Input NAND Gate	DIL14/SO14
M74HCT10	H	Triple 3-Input NAND Gate	DIL14/SO14
M74HC11	H	Triple 3-Input AND Gate	DIL14/SO14
M74HC14	H	Hex Schmitt Inverter	DIL14/SO14
M74HCT14	H	Hex Schmitt Inverter	DIL14/SO14
M74HC20	H	Dual 4-Input NAND Gate	DIL14/SO14
M74HC21	H	Dual 4-Input AND Gate	DIL14/SO14
M74HC27	H	Triple 3-Input NOR Gate	DIL14/SO14
M74HCT27	H	Triple 3-Input NOR Gate	DIL14/SO14
M74HC30	H	8-Input NAND Gate	DIL14/SO14
M74HCT30	H	8-Input NAND Gate	DIL14/SO14
M74HC32	H	Quad 2-Input OR Gate	DIL14/SO14
M74HCT32	H	Quad 2-Input OR Gate	DIL14/SO14
M74HC42	H	BCD to Decimal Decoder	DIL16/SO16
M74HC51	H	Dual 2-Wide 2-Input/3-Input AND-OR Inv. Gate	DIL14/SO14
M74HC73	H	Dual J-K Flip-Flop With Clear	DIL14/SO14
M74HC74	H	Dual D-Type Flip-Flop With Preset And Clear	DIL14/SO14
M74HCT74	H	Dual D-Type Flip-Flop With Preset And Clear	DIL14/SO14
M74HC75	H	4-Bit D-Type Latch	DIL16/SO16
M74HCT75	H	4-Bit D-Type Latch	DIL16/SO16
M74HC76	H	Dual J-K Flip-Flop With Preset And Clear	DIL16/SO16
M74HC77	H	4-Bit D-Type Latch	DIL14/SO14
M74HC85	H	4-Bit Magnitude Comparator	DIL16/SO16

H = ESA/SCC approved

HIGH SPEED CMOS

M74HC SERIES (cont'd)

Type		Description	Package
M74HC86	H	Quad Exclusive OR Gate	DIL14/SO14
M74HCT86		Quad Exclusive OR Gate	DIL14/SO14
M74HC107	H	Dual J-K Flip-Flop With Clear	DIL14/SO14
M74HC109	H	Dual J-K Flip-Flop With Preset And Clear	DIL16/SO16
M74HC112	H	Dual J-K Flip-Flop With Preset And Clear	DIL16/SO16
M74HC113		Dual J-K Flip-Flop With Preset	DIL14/SO14
M74HC123	H	Dual Retriggerable Monostable Multivibrator	DIL16/SO16
M74HC123A		Dual Retriggerable Monostable Multivibrator with Clear	DIL16/SO16
M74HC125	H	Quad Bus Buffer (3-State)	DIL14/SO14
M74HCT125		Quad Bus Buffer (3-State)	DIL14/SO14
M74HC126	H	Quad Bus Buffer (3-State)	DIL14/SO14
M74HCT126		Quad Bus Buffer (3-State)	DIL14/SO14
M74HC131		3 to 8 Line Decoder Latch	DIL16/SO16
M74HC132	H	Quad 2-Input Schmitt NAND Gate	DIL14/SO14
M74HC133		13-Input NAND Gate	DIL16/SO16
M74HC137	H	3 to 8 Line Decoder Latch (Inv.)	DIL16/SO16
M74HCT137		3 to 8 Line Decoder Latch (Inv.)	DIL16/SO16
M74HC138	H	3 to 8 Line Decoder (Inv.)	DIL16/SO16
M74HCT138	H	3 to 8 Line Decoder (Inv.)	DIL16/SO16
M74HC139	H	Dual 2 to 4 Line Decoder/Demultiplexer	DIL16/SO16
M74HCT139		Dual 2 to 4 Line Decoder/Demultiplexer	DIL16/SO16
M74HC147		10 to 4 Line Priority Encoder	DIL16/SO16
M74HC148	H	8 to 3 Line Priority Encoder	DIL16/SO16
M74HC151	H	8-Channel Multiplexer	DIL16/SO16
M74HC153	H	Dual 4-Channel Multiplexer	DIL16/SO16
M74HC154	H	4 to 16 Line Decoder/Demultiplexer	DIL24/SO24
M74HC155		Dual 2 to 4 Line Decoder/3 to 8 Line Decoder	DIL16/SO16
M74HC157	H	Quad 2-Channel Multiplexer	DIL16/SO16
M74HCT157		Quad 2-Channel Multiplexer	DIL16/SO16
M74HC158	H	Quad 2-Channel Multiplexer (Inv.)	DIL16/SO16
M74HCT158		Quad 2-Channel Multiplexer (Inv.)	DIL16/SO16
M74HC160	H	Synchronous Decade Counter With Async. Clear	DIL16/SO16
M74HCT160		Synchronous Decade Counter With Async. Clear	DIL16/SO16
M74HC161	H	Synchronous Binary Counter With Async. Clear	DIL16/SO16
M74HCT161		Synchronous Binary Counter With Async. Clear	DIL16/SO16
M74HC162	H	Synchronous Decade Counter With Sync. Clear	DIL16/SO16
M74HCT162		Synchronous Binary Counter With Sync. Clear	DIL16/SO16
M74HC163	H	Synchronous Binary Counter With Sync. Clear	DIL16/SO16
M74HCT163		Synchronous Binary Counter With Sync. Clear	DIL16/SO16
M74HC164	H	8 Bit SIPO Shift Register	DIL14/SO14
M74HCT164		8 Bit SIPO Shift Register	DIL14/SO14
M74HC165	H	8 Bit PISO Shift Register	DIL16/SO16

H = ESA/SCC approved

M74HC SERIES (cont'd)

Type		Description	Package
M74HCT165		8 Bit PISO Shift Register	DIL16/SO16
M74HC166	H	8 Bit PISO Shift Register	DIL16/SO16
M74HC173		Quad D-Type Register (3-State)	DIL16/SO16
M74HC174	H	Hex D-Type Flip-Flop With Clear	DIL16/SO16
M74HCT174		Hex D-Type Flip-Flop With Clear	DIL16/SO16
M74HC175	H	Quad D-Type Flip-Flop With Clear	DIL16/SO16
M74HC181		Arithmetic Logic Unit Function Generator	DIL24/SO24
M74HC182		Function Look Ahead Carry Generator	DIL16/SO16
M74HC190	H	BCD Asynchronous Up/Down Counter	DIL16/SO16
M74HC191	H	4 Bit Synchronous Binary Up/Down Counter	DIL16/SO16
M74HC192		Synchronous Up/Down Decade Counter	DIL16/SO16
M74HC193	H	Synchronous Up/Down Binary Counter	DIL16/SO16
M74HC194	H	4 Bit PIPO Shift Register	DIL16/SO16
M74HC195	H	4 Bit PIPO Shift Register	DIL16/SO16
M74HC221		Dual Monostable Multivibrator	DIL16/SO16
M74HC221A		Dual Monostable Multivibrator	DIL16/SO16
M74HC237	H	3 to 8 Line Decoder Latch	DIL16/SO16
M74HC238		3 to 8 Line Decoder	DIL16/SO16
M74HC240	H	Octal Bus Buffer (3-State/Inv.)	DIL20/SO20
M74HC240HV		Octal Bus Buffer (3-State/Inv.)	DIL20/SO20
M74HCT240	H	Octal Bus Buffer (3-State/Inv.)	DIL20/SO20
M74HCT240PU		Octal Bus Buffer (3-State/Inv.)	DIL20/SO20
M74HC241	H	Octal Bus Buffer (3-State)	DIL20/SO20
M74HC241HV		Octal Bus Buffer (3-State)	DIL20/SO20
M74HCT241		Octal Bus Buffer (3-State)	DIL20/SO20
M74HCT241PU		Octal Bus Buffer (3-State)	DIL20/SO20
M74HC242	H	Quad Bus Transceiver (3-State/Inv.)	DIL14/SO14
M74HC243	H	Quad Bus Transceiver (3-State)	DIL14/SO14
M74HC244	H	Octal Bus Buffer (3-State)	DIL20/SO20
M74HCT244	H	Octal Bus Buffer (3-State)	DIL20/SO20
M74HCT244PU		Octal Buffer (3-State)	DIL20/SO20
M74HC245	H	Octal Bus Transceiver (3-State)	DIL20/SO20
M74HCT245	H	Octal Bus Transceiver (3-State)	DIL20/SO20
M74HC251	H	8-Channel Multiplexer (3-State)	DIL16/SO16
M74HC253	H	Dual 4-Channel Multiplexer (3-State/Inv.)	DIL16/SO16
M74HC257	H	Quad 2-Channel Multiplexer (3-State)	DIL16/SO16
M74HCT257		Quad 2-Channel Multiplexer (3-State)	DIL16/SO16
M74HC258		Quad 2-Channel Multiplexer (3-State/Inv.)	DIL16/SO16
M74HCT258		Quad 2-Channel Multiplexer (3-State/Inv.)	DIL16/SO16
M74HC259		8 Bit Addressable Latch	DIL16/SO16
M74HC266		Quad Exclusive Nor Gate With Open Drain	DIL14/SO14
M74HC273	H	Octal D-Type Flip-Flop With Clear	DIL20/SO20

H = ESA/SCC approved

HIGH SPEED CMOS

M74HC SERIES (cont'd)

Type		Description	Package
M74HCT273		Octal D-Type Flip-Flop With Clear	DIL20/SO20
M74HC279		Quad S-R Latch	DIL16/SO16
M74HC280	H	9 Bit Parity Generator	DIL14/SO14
M74HC283	H	4 Bit Binary Full Adder	DIL16/SO16
M74HC292		Programmable Divider/Timer	DIL16/SO16
M74HC294		Programmable Divider/Timer	DIL16/SO16
M74HC298		Quad 2-Channel Multiplexer Register	DIL16/SO16
M74HC299		8 Bit PIPO Shift Register (3-State)	DIL20/SO20
M74HC323		8 Bit PIPO Shift Register (3-State)	DIL20/SO20
M74HC352		Dual 4-Channel Multiplexer (Inv.)	DIL16/SO16
M74HC353		Dual 4-Channel Multiplexer (3-State/Inv.)	DIL16/SO16
M74HC354		8 Channel Multiplexer/Register (3 State)	DIL20/SO20
M74HC356	H	8 Channel Multiplexer/Register (3-State)	DIL20/SO20
M74HC365	H	Hex Bus Buffer (3-State)	DIL16/SO16
M74HC366		Hex Bus Buffer (3-State/Inv.)	DIL16/SO16
M74HC367	H	Hex Bus Buffer (3-State)	DIL16/SO16
M74HCT367		Hex Bus Buffer (3-State)	DIL16/SO16
M74HC368	H	Hex Bus Buffer (3-State/Inv.)	DIL16/SO16
M74HCT368		Hex Bus Buffer (3-State/Inv.)	DIL16/SO16
M74HC373	H	Octal D-Type Latch (3-State)	DIL20/SO20
M74HCT373	H	Octal D-Type Latch (3-State)	DIL20/SO20
M74HC374	H	Octal D-Type Flip-Flop (3-State)	DIL20/SO20
M74HCT374	H	Octal D-Type Flip-Flop (3-State)	DIL20/SO20
M74HC375		Quad D-Type Latch	DIL16/SO16
M74HC377		Octal D-Type Flip-Flop	DIL20/SO20
M74HC386	H	Quad Exclusive OR Gate	DIL14/SO14
M74HC390	H	Dual Decade Counter	DIL16/SO16
M74HC393	H	Dual Binary Counter	DIL14/SO14
M74HCT393		Dual Binary Counter	DIL14/SO14
M74HC423		Dual Monostable Multivibrator With Clear	DIL16/SO16
M74HC423A		Dual Monostable Multivibrator With Clear	DIL16/SO16
M74HC533		Octal D-Type Latch (3-State/Inv.)	DIL20/SO20
M74HCT533		Octal D-Type Latch (3-State/Inv.)	DIL20/SO20
M74HC534		Octal D-Type Flip-Flop (3-State/Inv.)	DIL20/SO20
M74HCT534		Octal D-Type Flip-Flop (3-State/Inv.)	DIL20/SO20
M74HC540	H	Octal Bus Buffer (3-State/Inv.)	DIL20/SO20
M74HCT540		Octal Bus Buffer (3-State/Inv.)	DIL20/SO20
M74HC541	H	Octal Bus Buffer (3-State)	DIL20/SO20
M74HCT541		Octal Bus Buffer (3-State)	DIL20/SO20
M74HC563		Octal D-Type Latch (3-State/Inv.)	DIL20/SO20
M74HCT563		Octal D-Type Latch (3-State/Inv.)	DIL20/SO20
M74HC564		Octal D-Type Flip-Flop (3-State/Inv.)	DIL20/SO20

H = ESA/SCC approved

M74HC SERIES (cont'd)

Type		Description	Package
M74HCT564		Octal D-Type Flip-Flop (3-State/Inv.)	DIL20/SO20
M74HC573	H	Octal D-Type Latch (3-State)	DIL20/SO20
M74HCT573		Octal D-Type Latch (3-State)	DIL20/SO20
M74HC574	H	Octal D-Type Flip-Flop (3-State)	DIL20/SO20
M74HCT574		Octal D-Type Flip-Flop (3-State)	DIL20/SO20
M74HC590	H	8 Bit Binary Counter Register (3-State)	DIL16/SO16
M74HC592		8 Bit Binary Counter With Input Register	DIL16/SO16
M74HC593		8 Bit Binary Counter With Input Register (3-State)	DIL20/SO20
M74HC595	H	8 Bit Shift Register Output Latch (3-State)	DIL16/SO16
M74HC597	H	8 Bit Latch Shift Register	DIL16/SO16
M74HC620		Octal Bus Transceiver (3-State/Inv.)	DIL20/SO20
M74HC623	H	Octal Bus Transceiver (3-State)	DIL20/SO20
M74HC640		Octal Bus Transceiver (3-State/Inv.)	DIL20/SO20
M74HCT640		Octal Bus Transceiver (3-State/Inv.)	DIL20/SO20
M74HC643		Octal Bus Transceiver (3-State)	DIL20/SO20
M74HCT643		Octal Bus Transceiver (3-State)	DIL20/SO20
M74HC646		Octal Bus Transceiver Register (3-State)	DIL24/SO24
M74HCT646		Octal Bus transceiver Register (3-State)	DIL24/SO24
M74HC648		Octal Bus Transceiver Register (3-State/Inv.)	DIL24/SO24
M74HCT648		Octal Bus Transceiver Register (3-State/Inv.)	DIL24/SO24
M74HC651		Octal Bus Transceiver Register (3-State/Inv.)	DIL24/SO24
M74HCT651		Octal Bus Transceiver Register (3-State/Inv.)	DIL24/SO24
M74HC652		Octal Bus Transceiver Register	DIL24/SO24
M74HCT652		Octal Bus Transceiver Register	DIL24/SO24
M74HC670	H	4 Word x 4 Bit Register File (3-State)	DIL16/SO16
M74HC688	H	8 Bit Equality Comparator	DIL20/SO20
M74HCT688		8 Bit Equality Comparator	DIL20/SO20
M74HC690		Decade Counter Register (3-State)	DIL20/SO20
M74HC691		4 Bit Binary Counter Register (3-State)	DIL20/SO20
M74HC692		Decade Counter Register (3-State)	DIL20/SO20
M74HC693		4 Bit Binary Counter Register (3-State)	DIL20/SO20
M74HC696		U/D Decade Counter Register (3-State)	DIL20/SO20
M74HC697		U/D 4-Bit Binary Counter/Register (3-State)	DIL20/SO20
M74HC698		U/D Decade Counter Register (3-State)	DIL20/SO20
M74HC699		U/D 4-Bit Binary Counter/Register (3-State)	DIL20/SO20
M74HC4002	H	Dual 4-Input NOR Gate	DIL14/SO14
M74HC4016		Quad Bilateral Switches	DIL14/SO14
M74HC4017		Decade Counter/Divider	DIL16/SO16
M74HC4020	H	14-Stage Binary Counter	DIL16/SO16
M74HC4022		Octal Counter/Divider	DIL16/SO16
M74HC4024	H	7-Stage Binary Counter	DIL14/SO14
M74HC4028		BCD to Decimal Decoder	DIL16/SO16

H = ESA/SCC approved

HIGH SPEED CMOS

M74HC SERIES (cont'd)

Type		Description	Package
M74HC4040	H	12-Stage Binary Counter	DIL16/SO16
M74HC4049	H	Hex Buffer/Converter (Inv.)	DIL16/SO16
M74HC4050	H	Hex Buffer/Converter	DIL16/SO16
M74HC4051	H	Single 8-Channel Analog Multiplexer/Demultiplexer	DIL16/SO16
M74HC4052	H	Dual 4-Channel Analog Multiplexer/Demultiplexer	DIL16/SO16
M74HC4053	H	Triple 4-Channel Analog Multiplexer/Demultiplexer	DIL16/SO16
M74HC4060	H	14-Stage Binary Counter/Oscillator	DIL16/SO16
M74HC4066	H	Quad Bilateral Switch	DIL14/SO14
M74HC4072	H	Dual 4-Input OR Gate	DIL14/SO14
M74HC4075	H	Triple 3-Input OR Gate	DIL14/SO14
M74HC4078	H	8-Input Nor/OR Gate	DIL14/SO14
M74HC4094	H	8 Bit SIPO Shift Register Latch (3-State)	DIL16/SO16
M74HC40102		Dual BCD Programmable Down Counter	DIL16/SO16
M74HC40103		8 Bit Binary Programmable Down Counter	DIL16/SO16
M74HC4316		Quad Bilateral Switches	DIL16/SO16
M74HC4351		Analog Multiplexer	DIL20/SO20
M74HC4352		Analog Multiplexer	DIL20/SO20
M74HC4353		Analog Multiplexer	DIL20/SO20
M74HC4511		BCD to 7-Segment L/D/D (LED)	DIL16/SO16
M74HC4514	H	4 to 16 Line Decoder Latch	DIL24/SO24
M74HC4515		4 to 16 Line Decoder Latch (Inv.)	DIL24/SO24
M74HC4518		Dual Decade Counter	DIL16/SO16
M74HC4520	H	Dual 4 Bit Binary Counter	DIL16/SO16
M74HC4538	H	Dual Monostable Multivibrator	DIL16/SO16
M74HC4543		BCD to 7-Segment L/D/D (LCD)	DIL16/SO16
M74HCT7007		Hex Buffer	DIL14/SO14
M74HC7240		Octal Bus Buffer	DIL20/SO20
M74HC7241		Octal Bus Buffer	DIL20/SO20
M74HC7244		Octal Bus Buffer	DIL20/SO20
M74HC7245		Octal Bus Buffer	DIL20/SO20
M74HCT7259		8Bit Addressable Latch/Decoder/Relais Driver (Open Drain, Inverting Output)	DIL16/SO16
M74HC7266		Quad Exclusive NOR Gate	DIL14/SO14
M74HC7292		Programmable Divider/Timer	DIL16/SO16
M74HC7294		Programmable Divider/Timer	DIL16/SO16
M74HC7640		Bidirectional Octal Bus Buffer	DIL20/SO20
M74HC7643		Bidirectional Octal Bus Buffer	DIL20/SO20
M74HC7645		Bidirectional Octal Bus Buffer	DIL20/SO20

H = ESA/SCC approved