

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
T _A	Operating Temperature (54 Series)	– 55 to 125	°C

Type	Description	Package
M74HC00	CH Quad 2-Input NAND Gate	DIL14/SO-14
M74HCT00	H Quad 2-Input NAND Gate	DIL14/SO-14
M74HC02	CH Quad 2-Input NOR Gate	DIL14/SO-14
M74HCT02	H Quad 2-Input NOR Gate	DIL14/SO-14
M74HC03	CH Quad 2-Input NAND (Open Drain)	DIL14/SO-14
M74HC04	CH Hex Inverter	DIL14/SO-14
M74HCT04	CH Hex Inverter	DIL14/SO-14
M74HCU04	CH Hex Inverter (Single Stage)	DIL14/SO-14
M74HC05	CH Hex Inverter	DIL14/SO-14
M74HC07	CH Hex Buffer	DIL14/SO-14
M74HC08	CH Quad 2-Input NAND Gate	DIL14/SO-14
M74HCT08	H Quad 2-Input AND Gate	DIL14/SO-14
M74HC09	CH Quad 2-Input AND Gate (open drain)	DIL14/SO-14
M74HC10	CH Triple 3-Input NAND Gate	DIL14/SO-14
M74HCT10	C Triple 3-Input NAND Gate	DIL14/SO-14
M74HC11	CH Triple 3-Input AND Gate	DIL14/SO-14
M74HC14	CH Hex Schmitt Inverter	DIL14/SO-14
M74HCT14	C Hex Schmitt Inverter	DIL14/SO-14
M74HC20	CH Dual 4-Input NAND Gate	DIL14/SO-14
M74HC21	CH Dual 4-Input AND Gate	DIL14/SO-14
M74HC27	CH Triple 3-Input NOR Gate	DIL14/SO-14
M74HCT27	H Triple 3-Input NOR Gate	DIL14/SO-14
M74HC30	CH 8-Input NAND Gate	DIL14/SO-14
M74HCT30	H 8-Input NAND Gate	DIL14/SO-14
M74HC32	CH Quad 2-Input OR Gate	DIL14/SO-14
M74HCT32	H Quad 2-Input OR Gate	DIL14/SO-14
M74HC42	CH BCD to Decimal Decoder	DIL16/SO-16
M74HC51	CH Dual 2-Wide 2-Input/3-Input AND-OR Inv. Gate	DIL14/SO-14
M74HC73	CH Dual J-K Flip-Flop With Clear	DIL14/SO-14
M74HC74	CH Dual D-Type Flip-Flop With Preset And Clear	DIL14/SO-14
M74HCT74	H Dual D-Type Flip-Flop With Preset And Clear	DIL14/SO-14
M74HC75	CH 4-Bit D-Type Latch	DIL16/SO-16
M74HCT75	C 4-Bit D-Type Latch	DIL16/SO-16
M74HC76	CH Dual J-K Flip-Flop With Preset And Clear	DIL16/SO-16
M74HC77	CH 4-Bit D-Type Latch	DIL14/SO-14
M74HC85	CH 4-Bit Magnitude Comparator	DIL16/SO-16

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M74HC SERIES (cont'd)

Type		Description	Package
M74HC86	CH	Quad Exclusive OR Gate	DIL14/SO-14
M74HCT86	H	Quad Exclusive OR Gate	DIL14/SO-14
M74HC107	CH	Dual J-K Flip-Flop With Clear	DIL14/SO-14
M74HC109	CH	Dual J-K Flip-Flop With Preset And Clear	DIL16/SO-16
M74HC112	CH	Dual J-K Flip-Flop With Preset And Clear	DIL16/SO-16
M74HC113	CH	Dual J-K Flip-Flop With Preset	DIL14/SO-14
M74HC123	CH	Dual Retriggerable Monostable Multivibrator	DIL16/SO-16
M74HC123A		Dual Retriggerable Monostable Multivibrator with Clear	DIL16/SO-16
M74HC125	CH	Quad Bus Buffer (3-State)	DIL14/SO-14
M74HCT125	H	Quad Bus Buffer (3-State)	DIL14/SO-14
M74HC126	CH	Quad Bus Buffer (3-State)	DIL14/SO-14
M74HCT126	H	Quad Bus Buffer (3-State)	DIL14/SO-14
M74HC131	CH	3 to 8 Line Decoder Latch	DIL16/SO-16
M74HC132	CH	Quad 2-Input Schmitt NAND Gate	DIL14/SO-14
M74HC133	CH	13-Input NAND Gate	DIL16/SO-16
M74HC137	CH	3 to 8 Line Decoder Latch (Inv.)	DIL16/SO-16
M74HCT137	CH	3 to 8 Line Decoder Latch (Inv.)	DIL16/SO-16
M74HC138	CH	3 to 8 Line Decoder (Inv.)	DIL16/SO-16
M74HCT138	CH	3 to 8 Line Decoder (Inv.)	DIL16/SO-16
M74HC139	CH	Dual 2 to 4 Line Decoder/Demultiplexer	DIL16/SO-16
M74HCT139		Dual 2 to 4 Line Decoder/Demultiplexer	DIL16/SO-16
M74HC147	CH	10 to 4 Line Priority Encoder	DIL16/SO-16
M74HC148	CH	8 to 3 Line Priority Encoder	DIL16/SO-16
M74HC151	CH	8-Channel Multiplexer	DIL16/SO-16
M74HC153	CH	Dual 4-Channel Multiplexer	DIL16/SO-16
M74HC154	CH	4 to 16 Line Decoder/Demultiplexer	DIL24/SO-24
M74HC155	CH	Dual 2 to 4 Line Decoder/3 to 8 Line Decoder	DIL16/SO-16
M74HC157	CH	Quad 2-Channel Multiplexer	DIL16/SO-16
M74HCT157	H	Quad 2-Channel Multiplexer	DIL16/SO-16
M74HC158	CH	Quad 2-Channel Multiplexer (Inv.)	DIL16/SO-16
M74HCT158	H	Quad 2-Channel Multiplexer (Inv.)	DIL16/SO-16
M74HC160	CH	Synchronous Decade Counter With Async. Clear	DIL16/SO-16
M74HCT160		Synchronous Decade Counter With Async. Clear	DIL16/SO-16
M74HC161	CH	Synchronous Binary Counter With Async. Clear	DIL16/SO-16
M74HCT161		Synchronous Binary Counter With Async. Clear	DIL16/SO-16
M74HC162	CH	Synchronous Decade Counter With Sync. Clear	DIL16/SO-16
M74HCT162		Synchronous Binary Counter With Sync. Clear	DIL16/SO-16
M74HC163	CH	Synchronous Binary Counter With Sync. Clear	DIL16/SO-16
M74HCT163		Synchronous Binary Counter With Sync. Clear	DIL16/SO-16
M74HC164	CH	8 Bit SIPO Shift Register	DIL14/SO-14
M74HCT164	H	8 Bit SIPO Shift Register	DIL14/SO-14
M74HC165	CH	8 Bit PISO Shift Register	DIL16/SO-16

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M74HC SERIES (cont'd)

Type		Description	Package
M74HCT165		8 Bit PISO Shift Register	DIL16/SO-16
M74HC166	CH	8 Bit PISO Shift Register	DIL16/SO-16
M74HC173	CH	Quad D-Type Register (3-State)	DIL16/SO-16
M74HC174	CH	Hex D-Type Flip-Flop With Clear	DIL16/SO-16
M74HCT174	H	Hex D-Type Flip-Flop With Clear	DIL16/SO-16
M74HC175	CH	Quad D-Type Flip-Flop With Clear	DIL16/SO-16
M74HC181	CH	Arithmetic Logic Unit Function Generator	DIL24/SO-24
M74HC182	CH	Function Look Ahead Carry Generator	DIL16/SO-16
M74HC190	CH	BCD Asynchronous Up/Down Counter	DIL16/SO-16
M74HC191	CH	4 Bit Synchronous Binary Up/Down Counter	DIL16/SO-16
M74HC192	CH	Synchronous Up/Down Decade Counter	DIL16/SO-16
M74HC193	CH	Synchronous Up/Down Binary Counter	DIL16/SO-16
M74HC194	CH	4 Bit PIPO Shift Register	DIL16/SO-16
M74HC195	CH	4 Bit PIPO Shift Register	DIL16/SO-16
M74HC221	CH	Dual Monostable Multivibrator	DIL16/SO-16
M74HC221A		Dual Monostable Multivibrator	DIL16/SO-16
M74HC237	CH	3 to 8 Line Decoder Latch	DIL16/SO-16
M74HC238	CH	3 to 8 Line Decoder	DIL16/SO-16
M74HC240	CH	Octal Bus Buffer (3-State/Inv.)	DIL20/SO-20
M74HC240HV		Octal Bus Buffer (3-State/Inv.)	DIL20/SO-20
M74HCT240	CH	Octal Bus Buffer (3-State/Inv.)	DIL20/SO-20
M74HCT240PU		Octal Bus Buffer (3-State/Inv.)	DIL20/SO-20
M74HC241	CH	Octal Bus Buffer (3-State)	DIL20/SO-20
M74HC241HV		Octal Bus Buffer (3-State)	DIL20/SO-20
M74HCT241	CH	Octal Bus Buffer (3-State)	DIL20/SO-20
M74HCT241PU		Octal Bus Buffer (3-State)	DIL20/SO-20
M74HC242	CH	Quad Bus Transceiver (3-State/Inv.)	DIL14/SO-14
M74HC243	CH	Quad Bus Transceiver (3-State)	DIL14/SO-14
M74HC244	CH	Octal Bus Buffer (3-State)	DIL20/SO-20
M74HCT244	CH	Octal Bus Buffer (3-State)	DIL20/SO-20
M74HCT244PU		Octal Buffer (3-State)	DIL20/SO-20
M74HC245	CH	Octal Bus Transceiver (3-State)	DIL20/SO-20
M74HCT245	CH	Octal Bus Transceiver (3-State)	DIL20/SO-20
M74HC251	CH	8-Channel Multiplexer (3-State)	DIL16/SO-16
M74HC253	CH	Dual 4-Channel Multiplexer (3-State/Inv.)	DIL16/SO-16
M74HC257	CH	Quad 2-Channel Multiplexer (3-State)	DIL16/SO-16
M74HCT257	H	Quad 2-Channel Multiplexer (3-State)	DIL16/SO-16
M74HC258	CH	Quad 2-Channel Multiplexer (3-State/Inv.)	DIL16/SO-16
M74HCT258	H	Quad 2-Channel Multiplexer (3-State/Inv.)	DIL16/SO-16
M74HC259	CH	8 Bit Addressable Latch	DIL16/SO-16
M74HC266		Quad Exclusive Nor Gate With Open Drain	DIL14/SO-14
M74HC273	CH	Octal D-Type Flip-Flop With Clear	DIL20/SO-20

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M74HC SERIES (cont'd)

Type		Description	Package
M74HCT273		Octal D-Type Flip-Flop With Clear	DIL20/SO-20
M74HC279	CH	Quad S-R Latch	DIL16/SO-16
M74HC280	CH	9 Bit Parity Generator	DIL14/SO-14
M74HC283	CH	4 Bit Binary Full Adder	DIL16/SO-16
M74HC292	CH	Programmable Divider/Timer	DIL16
M74HC294	CH	Programmable Divider/Timer	DIL16
M74HC298	CH	Quad 2-Channel Multiplexer Register	DIL16/SO-16
M74HC299	CH	8 Bit PIPO Shift Register (3-State)	DIL20/SO-20
M74HC323	CH	8 Bit PIPO Shift Register (3-State)	DIL20/SO-20
M74HC352		Dual 4-Channel Multiplexer (Inv.)	DIL16/SO-16
M74HC353		Dual 4-Channel Multiplexer (3-State/Inv.)	DIL16/SO-16
M74HC354	CH	8 Channel Multiplexer/Register (3 State)	DIL20/SO-20
M74HC356	CH	8 Channel Multiplexer/Register (3-State)	DIL20/SO-20
M74HC365	CH	Hex Bus Buffer (3-State)	DIL16/SO-16
M74HC366	CH	Hex Bus Buffer (3-State/Inv.)	DIL16/SO-16
M74HC367	CH	Hex Bus Buffer (3-State)	DIL16/SO-16
M74HCT367	H	Hex Bus Buffer (3-State)	DIL16/SO-16
M74HC368	CH	Hex Bus Buffer (3-State/Inv.)	DIL16/SO-16
M74HCT368	H	Hex Bus Buffer (3-State/Inv.)	DIL16/SO-16
M74HC373	CH	Octal D-Type Latch (3-State)	DIL20/SO-20
M74HCT373	CH	Octal D-Type Latch (3-State)	DIL20/SO-20
M74HC374	CH	Octal D-Type Flip-Flop (3-State)	DIL20/SO-20
M74HCT374	H	Octal D-Type Flip-Flop (3-State)	DIL20/SO-20
M74HC375	CH	Quad D-Type Latch	DIL16/SO-16
M74HC377	CH	Octal D-Type Flip-Flop	DIL20/SO-20
M74HC386	CH	Quad Exclusive OR Gate	DIL14/SO-14
M74HC390	CH	Dual Decade Counter	DIL16/SO-16
M74HC393	CH	Dual Binary Counter	DIL14/SO-14
M74HCT393		Dual Binary Counter	DIL14/SO-14
M74HC423	CH	Dual Monostable Multivibrator With Clear	DIL16/SO-16
M74HC423A		Dual Monostable Multivibrator With Clear	DIL16/SO-16
M74HC533	CH	Octal D-Type Latch (3-State/Inv.)	DIL20/SO-20
M74HCT533	H	Octal D-Type Latch (3-State/Inv.)	DIL20/SO-20
M74HC534	CH	Octal D-Type Flip-Flop (3-State/Inv.)	DIL20/SO-20
M74HCT534	H	Octal D-Type Flip-Flop (3-State/Inv.)	DIL20/SO-20
M74HC540	CH	Octal Bus Buffer (3-State/Inv.)	DIL20/SO-20
M74HCT540	CH	Octal Bus Buffer (3-State/Inv.)	DIL20/SO-20
M74HC541	CH	Octal Bus Buffer (3-State)	DIL20/SO-20
M74HCT541	CH	Octal Bus Buffer (3-State)	DIL20/SO-20
M74HC563	CH	Octal D-Type Latch (3-State/Inv.)	DIL20/SO-20
M74HCT563	CH	Octal D-Type Latch (3-State/Inv.)	DIL20/SO-20
M74HC564	CH	Octal D-Type Flip-Flop (3-State/Inv.)	DIL20/SO-20

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M74HC SERIES (cont'd)

Type		Description	Package
M74HCT564	CH	Octal D-Type Flip-Flop (3-State/Inv.)	DIL20/SO-20
M74HC573	CH	Octal D-Type Latch (3-State)	DIL20/SO-20
M74HCT573	CH	Octal D-Type Latch (3-State)	DIL20/SO-20
M74HC574	CH	Octal D-Type Flip-Flop (3-State)	DIL20/SO-20
M74HCT574	CH	Octal D-Type Flip-Flop (3-State)	DIL20/SO-20
M74HC590	CH	8 Bit Binary Counter Register (3-State)	DIL16/SO-16
M74HC592	H	8 Bit Binary Counter With Input Register	DIL16/SO-16
M74HC593	H	8 Bit Binary Counter With Input Register (3-State)	DIL20/SO-20
M74HC595	CH	8 Bit Shift Register Output Latch (3-State)	DIL16/SO-16
M74HC597	CH	8 Bit Latch Shift Register	DIL16/SO-16
M74HC620	CH	Octal Bus Transceiver (3-State/Inv.)	DIL20/SO-20
M74HC623	CH	Octal Bus Transceiver (3-State)	DIL20/SO-20
M74HC640	CH	Octal Bus Transceiver (3-State/Inv.)	DIL20/SO-20
M74HCT640	CH	Octal Bus Transceiver (3-State/Inv.)	DIL20/SO-20
M74HC643	CH	Octal Bus Transceiver (3-State)	DIL20/SO-20
M74HCT643	CH	Octal Bus Transceiver (3-State)	DIL20/SO-20
M74HC646	CH	Octal Bus Transceiver Register (3-State)	DIL24/SO-24
M74HCT646	CH	Octal Bus transceiver Register (3-State)	DIL24/SO-24
M74HC648	CH	Octal Bus Transceiver Register (3-State/Inv.)	DIL24/SO-24
M74HCT648	CH	Octal Bus Transceiver Register (3-State/Inv.)	DIL24/SO-24
M74HC651	CH	Octal Bus Transceiver Register (3-State/Inv.)	DIL24/SO-24
M74HCT651	CH	Octal Bus Transceiver Register (3-State/Inv.)	DIL24/SO-24
M74HC652	CH	Octal Bus Transceiver Register	DIL24/SO-24
M74HCT652	CH	Octal Bus Transceiver Register	DIL24/SO-24
M74HC670	CH	4 Word x 4 Bit Register File (3-State)	DIL16/SO-16
M74HC688	CH	8 Bit Equality Comparator	DIL20/SO-20
M74HCT688	H	8 Bit Equality Comparator	DIL20/SO-20
M74HC690	CH	Decade Counter Register (3-State)	DIL20/SO-20
M74HC691	CH	4 Bit Binary Counter Register (3-State)	DIL20/SO-20
M74HC692	CH	Decade Counter Register (3-State)	DIL20/SO-20
M74HC693	CH	4 Bit Binary Counter Register (3-State)	DIL20/SO-20
M74HC696	CH	U/D Decade Counter Register (3-State)	DIL20/SO-20
M74HC697	CH	U/D 4-Bit Binary Counter/Register (3-State)	DIL20/SO-20
M74HC698	CH	U/D Decade Counter Register (3-State)	DIL20/SO-20
M74HC699	CH	U/D 4-Bit Binary Counter/Register (3-State)	DIL20/SO-20
M74HC4002	CH	Dual 4-Input NOR Gate	DIL14/SO-14
M74HC4016		Quad Bilateral Switches	DIL14/SO-14
M74HC4017	CH	Decade Counter/Divider	DIL16/SO-16
M74HC4020	CH	14-Stage Binary Counter	DIL16/SO-16
M74HC4022	CH	Octal Counter/Divider	DIL16/SO-16
M74HC4024	CH	7-Stage Binary Counter	DIL14/SO-14
M74HC4028	CH	BCD to Decimal Decoder	DIL16/SO-16

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M74HC SERIES (cont'd)

Type		Description	Package
M74HC4040	CH	12-Stage Binary Counter	DIL16/SO-16
M74HC4049	CH	Hex Buffer/Converter (Inv.)	DIL16/SO-16
M74HC4050	CH	Hex Buffer/Converter	DIL16/SO-16
M74HC4051	H	Single 8-Channel Analog Multiplexer/Demultiplexer	DIL16/SO-16
M74HC4052	H	Dual 4-Channel Analog Multiplexer/Demultiplexer	DIL16/SO-16
M74HC4053	H	Triple 4-Channel Analog Multiplexer/Demultiplexer	DIL16/SO-16
M74HC4060	CH	14-Stage Binary Counter/Oscillator	DIL16/SO-16
M74HC4066	CH	Quad Bilateral Switch	DIL14/SO-14
M74HC4072	CH	Dual 4-Input OR Gate	DIL14/SO-14
M74HC4075	CH	Triple 3-Input OR Gate	DIL14/SO-14
M74HC4078	CH	8-Input Nor/OR Gate	DIL14/SO-14
M74HC4094	CH	8 Bit SIPO Shift Register Latch (3-State)	DIL16/SO-16
M74HC40102	CH	Dual BCD Programmable Down Counter	DIL16
M74HC40103	CH	8 Bit Binary Programmable Down Counter	DIL16
M74HC4316		Quad Bilateral Switches	DIL16/SO-16
M74HC4351		Analog Multiplexer	DIL20/SO-20
M74HC4352		Analog Multiplexer	DIL20/SO-20
M74HC4353		Analog Multiplexer	DIL20/SO-20
M74HC4511	CH	BCD to 7-Segment L/D/D (LED)	DIL16/SO-16
M74HC4514	CH	4 to 16 Line Decoder Latch	DIL24/SO-24
M74HC4515	CH	4 to 16 Line Decoder Latch (Inv.)	DIL24/SO-24
M74HC4518	CH	Dual Decade Counter	DIL16/SO-16
M74HC4520	CH	Dual 4 Bit Binary Counter	DIL16/SO-16
M74HC4538	CH	Dual Monostable Multivibrator	DIL16/SO-16
M74HC4543	C	BCD to 7-Segment L/D/D (LCD)	DIL16/SO-16
M74HCT7007	C	Hex Buffer	DIL14/SO-14
M74HC7240		Octal Bus Buffer	DIL20/SO-20
M74HC7241		Octal Bus Buffer	DIL20/SO-20
M74HC7244		Octal Bus Buffer	DIL20/SO-20
M74HC7245		Octal Bus Buffer	DIL20/SO-20
M74HCT7259		8Bit Addressable Latch/Decoder/Relais Driver (Open Drain, Inverting Output)	DIL16/SO-16
M74HC7266	C	Quad Exclusive NOR Gate	DIL14/SO-14
M74HC7292	C	Programmable Divider/Timer	DIL16
M74HC7294	C	Programmable Divider/Timer	DIL16
M74HC7640		Bidirectional Octal Bus Buffer	DIL20/SO-20
M74HC7643		Bidirectional Octal Bus Buffer	DIL20/SO-20
M74HC7645		Bidirectional Octal Bus Buffer	DIL20/SO-20

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