

## Product Overview

### MC74VHC1G125: Single Non-Inverting Buffer, 3-State

For complete documentation, see the data sheet.

The MC74VHC1G125 is an advanced high speed CMOS noninverting 3-state buffer fabricated with silicon gate CMOS technology. It achieves high speed operation similar to equivalent Bipolar Schottky TTL while maintaining CMOS low power dissipation.

The internal circuit is composed of three stages, including a buffered 3-state output which provides high noise immunity and stable output. The MC74VHC1G125 input structure provides protection when voltages up to 7V are applied, regardless of the supply voltage. This allows the MC74VHC1G125 to be used to interface 5V circuits to 3V circuits.

### Features

- High Speed:  $t_{PD} = 3.5\text{ns}$  (Typ) at  $V_{CC} = 5\text{V}$
- Low Power Dissipation:  $I_{CC} = 1\mu\text{A}$  (Max) at  $T_A = 25^\circ\text{C}$
- Power Down Protection Provided on Inputs
- Balanced Propagation Delays
- Pin and Function Compatible with Other Standard Logic Families
- Chip Complexity: FETs = 58; Equivalent Gates = 15
- Pb-Free Packages are Available

### Part Electrical Specifications

Product	Compliance	Status	Channels	Output	$V_{CC}$ Min (V)	$V_{CC}$ Max (V)	$t_{pd}$ Max (ns)	$I_O$ Max (mA)	Package Type
M74VHC1G125DFT1G	Pb-free Halide free	Active	1	3-State	2	5.5	7.5	8	SC-88A / SC-70-5
M74VHC1G125DFT2G	Pb-free Halide free	Active	1	3-State	2	5.5	7.5	8	SC-88A / SC-70-5
M74VHC1G125DTT1G	Pb-free Halide free	Active	1	3-State	2	5.5	7.5	8	TSOP-5 / SOT-23-5
NLVHC1G125DFT1G	AEC Qualified PPAP Capable Pb-free Halide free	Active	1	3-State	2	5.5	7.5	8	SC-88A / SC-70-5
NLVHC1G125DFT2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	1	3-State	2	5.5	7.5	8	SC-88A / SC-70-5

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