

Single 2-Input Exclusive OR Gate

MC74VHC1G86, MC74VHC1GT86

The MC74VHC1G86 / MC74VHC1GT86 is a 2-input Exclusive OR Gate in tiny packages. The MC74VHC1G86 has CMOS level input thresholds while the MC74VHC1GT86 has TTL level input thresholds.

The internal circuit is composed of three stages, including a buffered output which provides high noise immunity and stable output.

The input structures provide protection when voltages up to 5.5 V are applied, regardless of the supply voltage. This allows the device to be used to interface 5 V circuits to 3 V circuits. The output structures also provide protection when $V_{CC} = 0$ V and when the output voltage exceeds V_{CC} . These input and output structures help prevent device destruction caused by supply voltage – input/output voltage mismatch, battery backup, hot insertion, etc.

Features

- Designed for 2.0 V to 5.5 V V_{CC} Operation
- 3.5 ns t_{PD} at 5 V (typ)
- Inputs/Outputs Over-Voltage Tolerant up to 5.5 V
- I_{OFF} Supports Partial Power Down Protection
- Source/Sink 8 mA at 3.0 V
- Available in SC-88A, SC-74A, TSOP-5, SOT-553, SOT-953 and UDFN6 Packages
- Chip Complexity < 100 FETs
- NLV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q100 Qualified and PPAP Capable
- These Devices are Pb-Free, Halogen Free/BFR Free and are RoHS Compliant

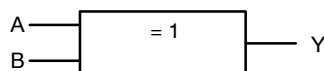


Figure 1. Logic Symbol



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MARKING DIAGRAMS		
	SC-88A DF SUFFIX CASE 419A	
	SC-74A DBV SUFFIX CASE 318BQ	
	TSOP-5 DT SUFFIX CASE 483	
	SOT-553 XV5 SUFFIX CASE 463B	
	SOT-953 P5 SUFFIX CASE 527AE	
	UDFN6 1.45 x 1.0 CASE 517AQ	
	UDFN6 1.2 x 1.0 CASE 517AA	
	UDFN6 1.0 x 1.0 CASE 517BX	

XX = Specific Device Code
M = Date Code*
▪ = Pb-Free Package

(Note: Microdot may be in either location)

ORDERING INFORMATION

See detailed ordering, marking and shipping information in the package dimensions section on page 7 of this data sheet.