

Product Overview

MC74HC4052A: Analog Multiplexer/Demultiplexer (Mux/Demux)

For complete documentation, see the data sheet.

High-Performance Silicon-Gate CMOS

The MC74HC4051A, MC74HC4052A and MC74HC4053A utilize silicon-gate CMOS technology to achieve fast propagation delays, low ON resistances, and low OFF leakage currents. These analog multiplexers/demultiplexers control analog voltages that may vary across the complete power supply range (from V_{CC} to V_{EE}).

The HC4051A, HC4052A and HC4053A are identical in pinout to the metal-gate MC14051AB, MC14052AB and MC14053AB. The Channel-Select inputs determine which one of the Analog Inputs/Outputs is to be connected, by means of an analog switch, to the Common Output/Input. When the Enable pin is HIGH, all analog switches are turned off.

The Channel-Select and Enable inputs are compatible with standard CMOS outputs; with pullup resistors they are compatible with LSTTL outputs.

These devices have been designed so that the ON resistance (R_{on}) is more linear over input voltage than R_{on} of metal-gate CMOS analog switches.

For a multiplexer/demultiplexer with injection current protection, see HC4851A and HC4852A.

Features

- Fast Switching and Propagation Speeds
- Low Crosstalk Between Switches
- Diode Protection on All Inputs/Outputs
- Analog Power Supply Range ($V_{CC} - V_{EE}$) = 2.0 to 12.0 V
- Digital (Control) Power Supply Range ($V_{CC} - GND$) = 2.0 to 6.0 V
- Improved Linearity and Lower ON Resistance Than Metal-Gate Counterparts
- Low Noise
- In Compliance With the Requirements of JEDEC Standard No. 7A
- Chip Complexity: HC4051A - 184 FETs or 46 Equivalent Gates
HC4052A - 168 FETs or 42 Equivalent Gates
HC4053A - 156 FETs or 39 Equivalent Gates
- Pb-Free Packages are Available

For more features, see the data sheet

Part Electrical Specifications

Product	Compliance	Status	Channels	Number of Switches	Configuration	I _{cc} Max (μA)	r _{on} Max (Ω)	V _{CC} Min (V)	V _{CC} Max (V)	Package Type
MC74HC4052ADG	Pb-free	Active	2	2	DP4T	80	190	2	12	SOIC-16
	Halide free									
MC74HC4052ADR2G	Pb-free	Active	2	2	DP4T	80	190	2	12	SOIC-16
	Halide free									
MC74HC4052ADTG	Pb-free	Active	2	2	DP4T	80	190	2	12	TSSOP-16
	Halide free									
MC74HC4052ADTR2G	Pb-free	Active	2	2	DP4T	80	190	2	12	TSSOP-16
	Halide free									
MC74HC4052ADWG	Pb-free	Active	2	2	DP4T	80	190	2	12	SOIC-16W
	Halide free									
MC74HC4052ADWR2G	Pb-free	Active	2	2	DP4T	80	190	2	12	SOIC-16W
	Halide free									
NLV74HC4052ADR2G	AEC Qualified	Active	2	2	DP4T	80	190	2	12	SOIC-16
	PPAP Capable									
	Pb-free									
	Halide free									
NLV74HC4052ADTRG	AEC Qualified	Active	2	2	DP4T	80	190	2	12	TSSOP-16
	PPAP Capable									
	Pb-free									
	Halide free									
NLVHC4052ADTR2G	AEC Qualified	Active	2	2	DP4T	80	190	2	12	TSSOP-16
	PPAP Capable									
	Pb-free									
	Halide free									

For more information please contact your local sales support at www.onsemi.com.

Created on: 6/18/2019