

CD54AC08/3A CD54ACT08/3A

COMPLETE DATA SHEET COMING SOON!

June 1997

Quad 2-Input AND Gate

Description

The CD54AC08/3A and CD54ACT08/3A are quad 2-input AND gates that utilize the Harris Advanced CMOS Logic technology.

The CD54AC08/3A and CD54ACT08/3A are supplied in 14 lead dual-in-line ceramic packages (F suffix).

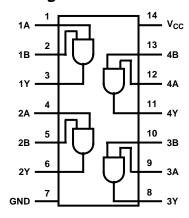
ACT INPUT LOAD TABLE

INPUT	UNIT LOAD (NOTE 1)
All	0.3

NOTE:

1. Unit load is ΔI_{CC} limit specified in DC Electrical Specifications Table, e.g., 2.4mA Max at +25°C.

Functional Diagram



Absolute Maximum Ratings

DC Supply Voltage, V _{CC} 0.5V to +6V
DC Input Diode Current, I _{IK}
For $V_1 < -0.5V$ or $V_1 > V_{CC} + 0.5V$ ±20mA
DC Output Diode Current, I _{OK}
For $V_O < -0.5V$ or $V_O > V_{CC} + 0.5V$
DC Output Source or Sink Current, Per Output Pin, IO
For $V_O > -0.5V$ or $V_O < V_{CC} + 0.5V$
DC V _{CC} or GND Current, I _{CC} or I _{GND}
For Up to 4 Outputs Per Device, Add ±25mA For Each
Additional Output±100mA

Power Dissipation Per Package, P_D $T_A = -55^{\circ}C$ to +100°C (Package F) 500mW
T _A = +100°C to +125°C (Package F) Derate Linearly at 8mW/°C to 300mW
Operating Temperature Range, T _△
1 0 1
Package Type F55°C to +125°C
Storage Temperature, T _{STG} 65°C to +150°C
Lead Temperature (During Soldering)
At Distance $1/16$ in. $\pm 1/32$ in. $(1.59$ mm ± 0.79 mm)
From Case For 10s Max
Unit Inserted Into a PC Board (Min Thickness 1/16in., 1.59mm)
With Solder Contacting Lead Tips Only+300°C

CAUTION: Stresses above those listed in "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress only rating and operation of the device at these or any other conditions above those indicated in the operational sections of this specification is not implied.

Recommended Operating Conditions

Supply Voltage Range, V _{CC}
Unless Otherwise Specified, All Voltages Referenced to GND
T _A = Full Package Temperature Range
CD54AC Types
CD54ACT Types
DC Input or Output Voltage, $\mathrm{V_{I},V_{O}.}$ 0V to $\mathrm{V_{CC}}$

Operating Temperature, T _A	-55°C to +125°C
Input Rise and Fall Slew Rate, dt/dv	
at 1.5V to 3V (AC Types)	0ns/V to 50ns/V
at 3.6V to 5.5V (AC Types)	0ns/V to 20ns/V
at 4.5V to 5.5V (AC Types)	0ns/V to 10ns/V