

**COMPLETE DATA SHEET
COMING SOON!**

June 1997

**CD54AC164/3A
CD54ACT164/3A**
8-Bit Serial-In/Parallel-Out Shift Registers
Description

The CD54AC164/3A and CD54ACT164/3A are 8-bit serial-in/parallel-out shift registers with asynchronous reset that utilize the Harris Advanced CMOS Logic technology. Data are shifted on the positive edge of the clock (CP). A LOW on the Master Reset (MR) pin resets the shift register and all outputs go to the LOW state regardless of the input conditions. Two Serial Data inputs (DS1 and DS2) are provided; either one can be used as a Data Enable control.

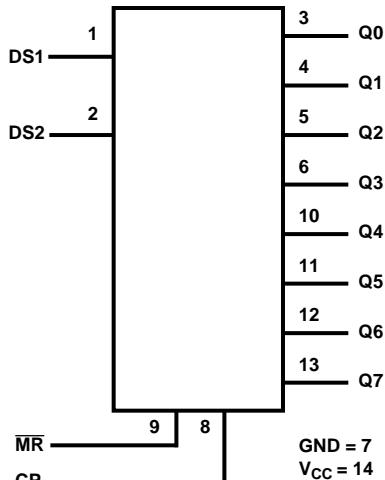
The CD54AC164/3A and CD54ACT164/3A are supplied in 14 lead dual-in-line ceramic packages (F suffix).

ACT INPUT LOAD TABLE

INPUT	UNIT LOAD (NOTE 1)
DS1, DS2	0.5
MR	0.74
CP	0.71

NOTE:

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

Functional Diagram


DC Supply Voltage, V_{CC}	-0.5V to +6V	Power Dissipation Per Package, P_D
DC Input Diode Current, I_{IK} For $V_I < -0.5V$ or $V_I > V_{CC} + 0.5V$	$\pm 20\text{mA}$	$T_A = -55^\circ\text{C}$ to $+100^\circ\text{C}$ (Package F) 500mW
DC Output Diode Current, I_{OK} For $V_O < -0.5V$ or $V_O > V_{CC} + 0.5V$	$\pm 50\text{mA}$	$T_A = +100^\circ\text{C}$ to $+125^\circ\text{C}$ (Package F) Derate Linearly at 8mW/ $^\circ\text{C}$ to 300mW
DC Output Source or Sink Current, Per Output Pin, I_O For $V_O > -0.5V$ or $V_O < V_{CC} + 0.5V$	$\pm 50\text{mA}$	Operating Temperature Range, T_A Package Type F -55°C to +125°C
DC V_{CC} or GND Current, I_{CC} or I_{GND} For Up to 4 Outputs Per Device, Add $\pm 25\text{mA}$ For Each Additional Output	$\pm 100\text{mA}$	Storage Temperature, T_{STG} -65°C to +150°C
		Lead Temperature (During Soldering) At Distance 1/16in. $\pm 1/32\text{in}$. (1.59mm \pm 0.79mm) From Case For 10s Max +265°C
		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	1.5V to 5.5V
CD54ACT Types	4.5V to 5.5V
DC Input or Output Voltage, V_I , V_O	0V to 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