

✓ **54LS/74LS564** 011567

**OCTAL D-TYPE FLIP-FLOP**

(With 3-State Outputs)

**DESCRIPTION** — The '564 is a high speed low power octal flip-flop with a buffered common Clock (CP) and a buffered common Output Enable ( $\overline{OE}$ ). The information presented to the D inputs is stored in the flip-flops on the LOW-to-HIGH Clock (CP) transition.

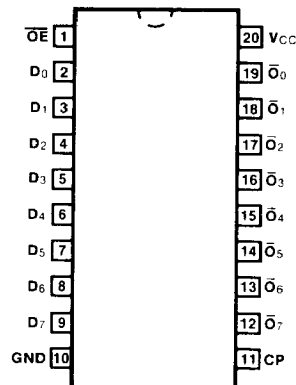
This device is functionally identical to the 'LS574, but has inverted outputs. For complete discussions of operations, truth tables, ac and dc electrical specifications, refer to the 'LS374 data sheet.

- **INPUTS AND OUTPUTS ON OPPOSITE SIDES OF PACKAGE ALLOWING EASY INTERFACE WITH MICROPROCESSORS**
- **USEFUL AS INPUT OR OUTPUT PORT FOR MICROPROCESSORS**
- **FUNCTIONALLY IDENTICAL TO 'LS574**
- **INPUT CLAMP DIODES LIMIT HIGH SPEED TERMINATION EFFECTS**
- **FULLY TTL AND CMOS COMPATIBLE**

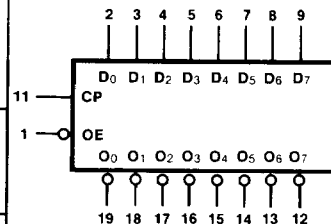
**ORDERING CODE:** See Section 9

| PKGS            | PIN OUT | COMMERCIAL GRADE  | MILITARY GRADE  | PKG TYPE |
|-----------------|---------|---|---|----------|
|                 |         | $V_{CC} = +5.0\text{ V} \pm 5\%$ ,<br>$T_A = 0^\circ\text{C to } +70^\circ\text{C}$ | $V_{CC} = +5.0\text{ V} \pm 10\%$ ,<br>$T_A = -55^\circ\text{C to } +125^\circ\text{C}$ |          |
| Plastic DIP (P) | A       | 74LS564PC   |   | 9Z       |
| Ceramic DIP (D) | A       | 74LS564DC   | 54LS564DM   | 4E       |
| Flatpak (F)     | A       | 74LS564FC   | 54LS564FM   | 4F       |

**CONNECTION DIAGRAM**  
PINOUT A



**LOGIC SYMBOL**



$V_{CC}$  = Pin 20  
GND = Pin 10

**INPUT LOADING/FAN-OUT:** See Section 3 for U.L. definitions

| PIN NAMES                         | DESCRIPTION                              | 54/74LS (U.L.)<br>HIGH/LOW |
|-----------------------------------|--|----------------------------|
| $D_0 - D_7$                       | Data Inputs                              | 0.5/0.25                   |
| CP                                | Clock Pulse Input (Active Rising Edge)   | 0.5/0.25                   |
| $\overline{OE}$                   | 3-State Output Enable Input (Active LOW) | 0.5/0.25                   |
| $\overline{O}_0 - \overline{O}_7$ | 3-State Outputs                          | 65/15<br>(25)/(7.5)        |