



**MC10130**

**DUAL LATCH**

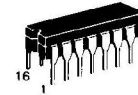
The MC10130 is a clocked dual D type latch. Each latch may be clocked separately by holding the common clock in the low state, and using the clock enable inputs for the clocking function. If the common clock is to be used to clock the latch, the clock enable ( $\overline{CE}$ ) inputs must be in the low state. In this mode, the enable inputs perform the function of controlling the common clock ( $\overline{C}$ ).

Any change at the D input will be reflected at the output while the clock is low. The outputs are latched on the positive transition of the clock. While the clock is in the high state, a change in the information present at the data inputs will not affect the output information.

The set and reset inputs do not override the clock and D inputs. They are effective only when either  $\overline{C}$  or  $\overline{CE}$  or both are high.

$P_D = 155 \text{ mW typ/pkg (No Load)}$   
 $t_{pd} = 2.5 \text{ ns typ}$   
 $t_r, t_f = 2.7 \text{ ns typ (20\%–80\%)}$

**DUAL LATCH**



**L SUFFIX**  
CERAMIC PACKAGE  
CASE 620

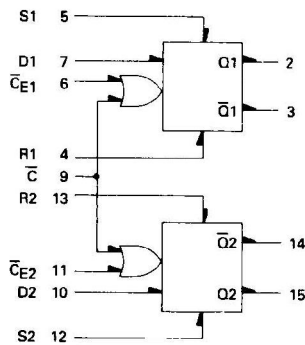
**P SUFFIX**  
PLASTIC PACKAGE  
CASE 648



**FN SUFFIX**  
PLCC  
CASE 775

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**LOGIC DIAGRAM**



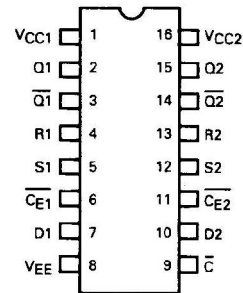
$V_{CC1} = \text{Pin 1}$   
 $V_{CC2} = \text{Pin 16}$   
 $V_{EE} = \text{Pin 8}$

**TRUTH TABLE**

D	$\overline{C}$	$\overline{CE}$	$Q_{n+1}$
L	L	L	L
H	L	L	H
$\phi$	L	H	$Q_n$
$\phi$	H	L	$Q_n$
$\phi$	H	H	$Q_n$

$\phi = \text{Don't Care}$

**DIP  
PIN ASSIGNMENT**



Pin assignment is for Dual-in-line Package.  
 For PLCC pin assignment, see tables on page 1-35.

