

# Quad 3-State D Flip-Flop with Common Clock and Reset

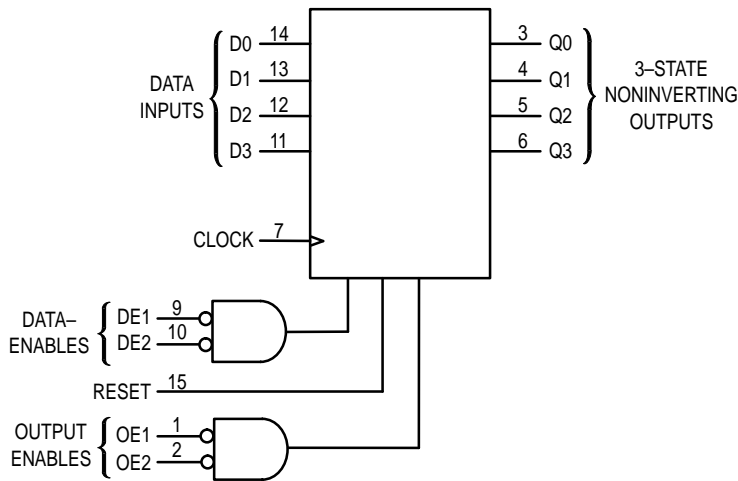
## High-Performance Silicon-Gate CMOS

The MC74HC173 is identical in pinout to the LS173. The device inputs are compatible with standard CMOS outputs; with pullup resistors, they are compatible with LSTTL outputs.

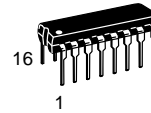
Data, when enabled, are clocked into the four D flip-flops with the rising edge of the common Clock. When either or both of the Output Enable Controls is high, the outputs are in a high-impedance state. This feature allows the HC173 to be used in bus-oriented systems. The Reset feature is asynchronous and active high.

- Output Drive Capability: 15 LSTTL Loads
- Outputs Directly Interface to CMOS, NMOS, and TTL
- Operating Voltage Range: 2 to 6 V
- Low Input Current: 1  $\mu$ A
- High Noise Immunity Characteristic of CMOS Devices
- In Compliance with the Requirements Defined by JEDEC Standard No. 7A
- Chip Complexity 208 FETs or 52 Equivalent Gates

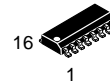
### LOGIC DIAGRAM



# MC74HC173



**N SUFFIX**  
PLASTIC PACKAGE  
CASE 648-08



**D SUFFIX**  
SOIC PACKAGE  
CASE 751B-05

### ORDERING INFORMATION

MC74HCXXXN Plastic  
MC74HCXXXD SOIC

### PIN ASSIGNMENT

OE1	1	16	VCC
OE2	2	15	RESET
Q0	3	14	D0
Q1	4	13	D1
Q2	5	12	D2
Q3	6	11	D3
CLOCK	7	10	DE2
GND	8	9	DE1

### FUNCTION TABLE

Output Enables		Inputs				Output	
OE1	OE2	Reset	Clock	Data Enables		Data D	Q
				DE1	DE2		
L	L	H	X	X	X	X	L
L	L	L	L	X	X	X	No Change
L	L	L	H	X	X	X	No Change
L	L	L	$\nearrow$	H	X	X	No Change
L	L	L	$\searrow$	X	H	X	No Change
L	L	L	$\nearrow$	L	L	L	L
L	L	L	$\searrow$	L	L	H	H
L	L	L	$\sim$	X	X	X	No Change
L	H	X	X	X	X	X	High Impedance
H	L	X	X	X	X	X	High Impedance
H	H	X	X	X	X	X	High Impedance

