

Absolute Maximum Ratings(Note 1)

Supply Voltage	7V
Input Voltage	7V
Operating Free Air Temperature Range	0°C to +70°C
Storage Temperature Range	-65°C to +150°C

Note 1: The "Absolute Maximum Ratings" are those values beyond which the safety of the device cannot be guaranteed. The device should not be operated at these limits. The parametric values defined in the Electrical Characteristics tables are not guaranteed at the absolute maximum ratings. The "Recommended Operating Conditions" table will define the conditions for actual device operation.

Recommended Operating Conditions

Symbol	Parameter	Min	Nom	Max	Units
V_{CC}	Supply Voltage	4.75	5	5.25	V
V_{IH}	HIGH Level Input Voltage	2			V
V_{IL}	LOW Level Input Voltage			0.8	V
I_{OH}	HIGH Level Output Current			-0.4	mA
I_{OL}	LOW Level Output Current			8	mA
t_W	Enable Pulse Width (Note 5)	20			ns
t_{SU}	Setup Time (Note 5)	20			ns
t_H	Hold Time (Note 5)	0			ns
T_A	Free Air Operating Temperature	0		70	°C

Electrical Characteristics

over recommended operating free air temperature range (unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ (Note 2)	Max	Units
V_I	Input Clamp Voltage	$V_{CC} = \text{Min}, I_I = -18 \text{ mA}$			-1.5	V
V_{OH}	HIGH Level Output Voltage	$V_{CC} = \text{Min}, I_{OH} = \text{Max}$ $V_{IL} = \text{Max}, V_{IH} = \text{Min}$	2.7	3.5		V
V_{OL}	LOW Level Output Voltage	$V_{CC} = \text{Min}, I_{OL} = \text{Max}$ $V_{IL} = \text{Max}, V_{IH} = \text{Min}$ $I_{OL} = 4 \text{ mA}, V_{CC} = \text{Min}$		0.35	0.5	V
I_I	Input Current @ Max Input Voltage	$V_{CC} = \text{Max}, V_I = 7V$	D		0.1	mA
			Enable		0.4	
I_{IH}	HIGH Level Input Current	$V_{CC} = \text{Max}, V_I = 2.7V$	D		20	μA
			Enable		80	
I_{IL}	LOW Level Input Current	$V_{CC} = \text{Max}, V_I = 0.4V$	D		-0.4	mA
			Enable		-1.6	
I_{OS}	Short Circuit Output Current	$V_{CC} = \text{Max}$ (Note 2)	-20		-100	mA
I_{CC}	Supply Current	$V_{CC} = \text{Max}$ (Note 3)		6.3	12	mA

Note 2: All typicals are at $V_{CC} = 5V, T_A = 25^\circ\text{C}$.

Note 3: Not more than one output should be shorted at a time, and the duration should not exceed one second.

Note 4: I_{CC} is measured with all outputs open and all inputs grounded.

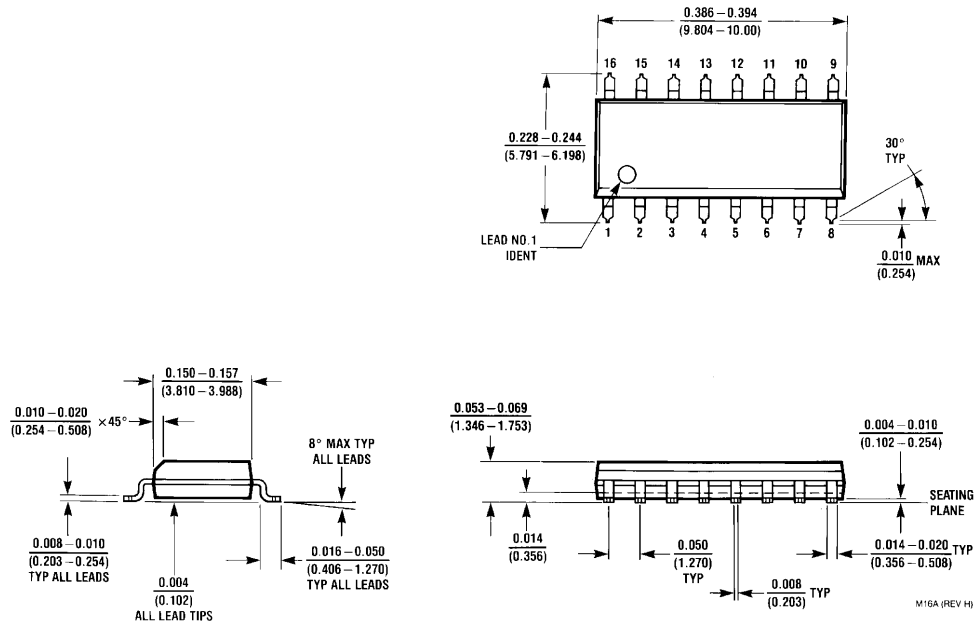
Note 5: $T_A = 25^\circ\text{C}$ and $V_{CC} = 5V$.

Switching Characteristics

at $V_{CC} = 5V$ and $T_A = 25^\circ C$

Symbol	Parameter	From (Input) To (Output)	$R_L = 2\text{ k}\Omega$				Units
			$C_L = 15\text{ pF}$		$C_L = 50\text{ pF}$		
			Min	Max	Min	Max	
t_{PLH}	Propagation Delay Time LOW-to-HIGH Level Output	D to Q		27		30	ns
t_{PHL}	Propagation Delay Time HIGH-to-LOW Level Output	D to Q		17		25	ns
t_{PLH}	Propagation Delay Time LOW-to-HIGH Level Output	D to \bar{Q}		20		25	ns
t_{PHL}	Propagation Delay Time HIGH-to-LOW Level Output	D to \bar{Q}		15		20	ns
t_{PLH}	Propagation Delay Time LOW-to-HIGH Level Output	Enable to Q		27		30	ns
t_{PHL}	Propagation Delay Time HIGH-to-LOW Level Output	Enable to Q		25		30	ns
t_{PLH}	Propagation Delay Time LOW-to-HIGH Level Output	Enable to \bar{Q}		30		30	ns
t_{PHL}	Propagation Delay Time HIGH-to-LOW Level Output	Enable to \bar{Q}		15		20	ns

Physical Dimensions inches (millimeters) unless otherwise noted



**16-Lead Small Outline Integrated Circuit (SOIC), JEDEC MS-012, 0.150 Narrow
Package Number M16A**

