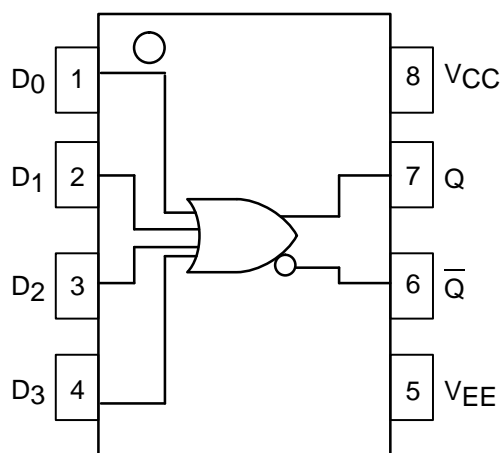


## 4-Input OR/NOR

The MC100LVEL01 is a 4-input OR/NOR gate. The device is functionally equivalent to the EL01 device and works from a  $-3.3V$  supply. With AC performance similar to the EL01 device, the LVEL01 is ideal for low voltage applications which require the ultimate in AC performance.

- 370ps Propagation Delay
- High Bandwidth Output Transitions
- Specified for  $-3.3V$  (or  $3.3V$ ) Supply Voltage
- $75k\Omega$  Internal Input Pulldown Resistors
- $>2000V$  ESD Protection

### LOGIC DIAGRAM AND PINOUT ASSIGNMENT



## MC100LVEL01



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

### PIN DESCRIPTION

PIN	FUNCTION
D0-D3	Data Inputs
Q	Data Outputs

### DC CHARACTERISTICS

Symbol	Characteristic	$-40^{\circ}C$			$0^{\circ}C$			$25^{\circ}C$			$85^{\circ}C$			Unit
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
$I_{EE}$	Power Supply Current		15	20		15	20		15	20		17	22	mA
$V_{EE}$	Power Supply Voltage	$-3.0$	$-3.3$	$-3.8$	$-3.0$	$-3.3$	$-3.8$	$-3.0$	$-3.3$	$-3.8$	$-3.0$	$-3.3$	$-3.8$	V
$I_{IH}$	Input HIGH Current			150			150			150			150	$\mu A$

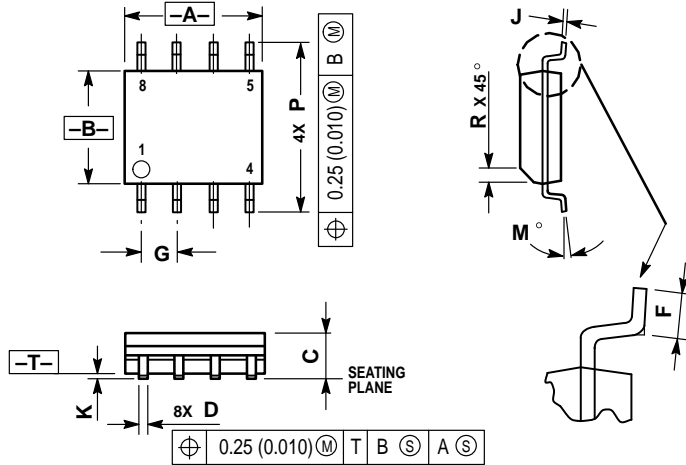
### AC CHARACTERISTICS ( $V_{EE} = V_{EE}(\min)$ to $V_{EE}(\max)$ ; $V_{CC} = GND$ )

Symbol	Characteristic	$-40^{\circ}C$			$0^{\circ}C$			$25^{\circ}C$			$85^{\circ}C$			Unit
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
$t_{PLH}$ $t_{PHL}$	Propagation Delay to Output	210	310	510	260	360	460	270	370	470	290	390	490	ps
$t_{skew}$	Input Skew		40			40			40			40		ps
$t_r$ $t_f$	Output Rise/Fall Times Q (20% - 80%)	120	225	320	120	225	320	120	225	320	120	225	320	ps



OUTLINE DIMENSIONS

D SUFFIX  
PLASTIC SOIC PACKAGE  
CASE 751-05  
ISSUE P



NOTES:

1. DIMENSIONS A AND B ARE DATUMS AND T IS A DATUM SURFACE.
2. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
3. DIMENSIONS ARE IN MILLIMETER.
4. DIMENSION A AND B DO NOT INCLUDE MOLD PROTRUSION.
5. MAXIMUM MOLD PROTRUSION 0.15 PER SIDE.
6. DIMENSION D DOES NOT INCLUDE MOLD PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.127 TOTAL IN EXCESS OF THE D DIMENSION AT MAXIMUM MATERIAL CONDITION.

DIM	MILLIMETERS	
	MIN	MAX
A	4.80	5.00
B	3.80	4.00
C	1.35	1.75
D	0.35	0.49
F	0.40	1.25
G	1.27 BSC	
J	0.18	0.25
K	0.10	0.25
M	0°	7°
P	5.80	6.20
R	0.25	0.50

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