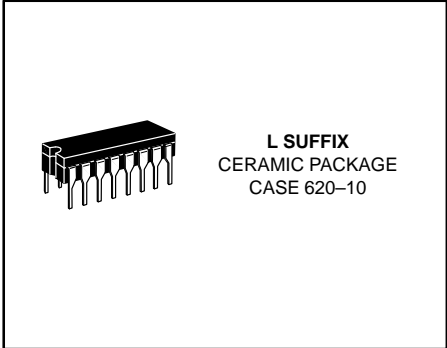


# Dual 4-Input OR/NOR Gate

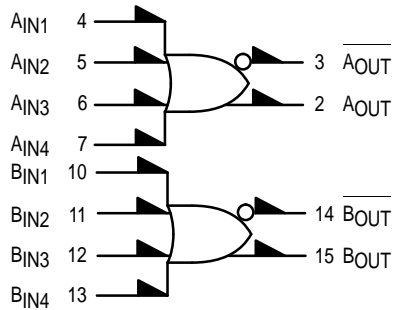
MC1660

**ELECTRICAL CHARACTERISTICS**

Characteristic	Symbol	-30°C		+25°C		+85°C		Unit
		Min	Max	Min	Max	Min	Max	
Power Supply Drain Current	$I_E$	—	—	—	28	—	—	mAdc
Input Current	$I_{inH}$	—	—	—	350	—	—	$\mu$ Adc
Switching Times								ns
Propagation Delay	$t_{+-}$	0.6	1.8	0.6	1.7	0.6	1.9	
	$t_{-+}$	0.6	1.6	0.6	1.5	0.6	1.7	
Rise Time, Fall Time (10% to 90%)	$t^+, t^-$	0.6	2.2	0.6	2.1	0.6	2.3	ns



**LOGIC DIAGRAM**



$$\overline{OUT} = \overline{IN1 + IN2 + IN3 + IN4}$$

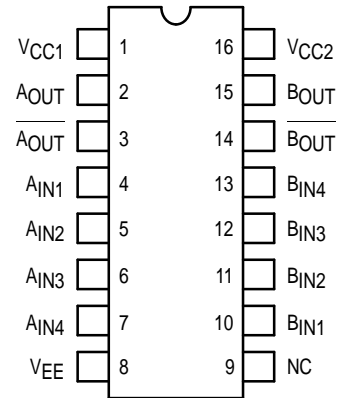
$$OUT = IN1 + IN2 + IN3 + IN4$$

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

$t_{pd} = 0.9 \text{ ns typ (510 ohm load)}$   
 $= 1.1 \text{ ns typ (50 ohm load)}$

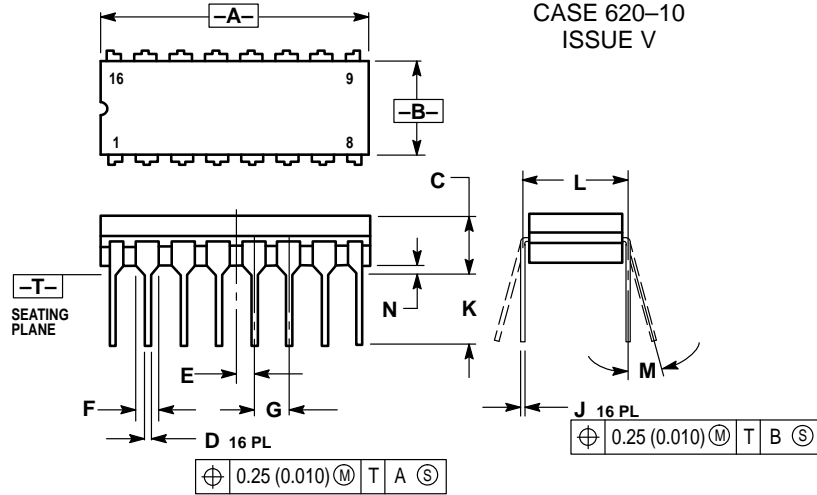
$P_D = 120 \text{ mW typ/pkg (No load)}$   
Full Load Current,  $I_L = -25 \text{ mAdc max}$

**PIN ASSIGNMENT**



OUTLINE DIMENSIONS

L SUFFIX  
CERAMIC DIP PACKAGE  
CASE 620-10  
ISSUE V



- NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
  2. CONTROLLING DIMENSION: INCH.
  3. DIMENSION L TO CENTER OF LEAD WHEN FORMED PARALLEL.
  4. DIMENSION F MAY NARROW TO 0.76 (0.030) WHERE THE LEAD ENTERS THE CERAMIC BODY.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.750	0.785	19.05	19.93
B	0.240	0.295	6.10	7.49
C	—	0.200	—	5.08
D	0.015	0.020	0.39	0.50
E	0.050 BSC		1.27 BSC	
F	0.055	0.065	1.40	1.65
G	0.100 BSC		2.54 BSC	
H	0.008	0.015	0.21	0.38
K	0.125	0.170	3.18	4.31
L	0.300 BSC		7.62 BSC	
M	0°	15°	0°	15°
N	0.020	0.040	0.51	1.01

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