Low Impedance Driver

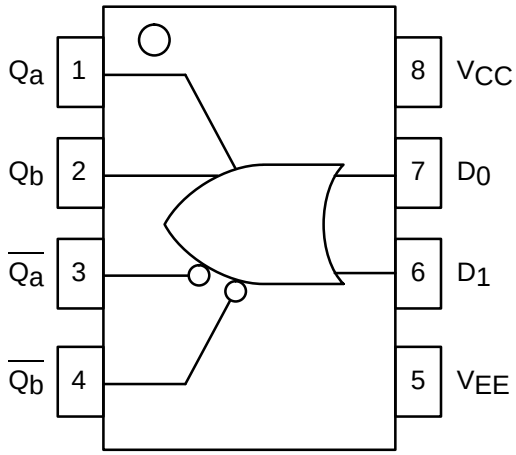
MC100LVEL12

The MC100LVEL12 is a low impedance drive buffer. With two pairs of OR/NOR outputs the device is ideally suited for high drive applications such as memory addressing. The device is a function equivalent to the EL12 device and operates from a low voltage power supply. With propagation delays equivalent to the EL12, the LVEL12 is ideally suited for those applications which require the ultimate in AC performance in a low voltage environment.

- 445ps Propagation Delay
- Dual Outputs for 25Ω Drive Applications
- 75kΩ Internal Input Pulldown Resistors
- >2000V ESD Protection

D SUFFIX
8–LEAD PLASTIC SOIC PACKAGE
CASE 751–05

LOGIC DIAGRAM AND PINOUT ASSIGNMENT



PIN DESCRIPTION

PIN	FUNCTION
D0, D1 Qa, Qb	Data Inputs Data Outputs

DC CHARACTERISTICS (V_{EE} = V_{EE}(min) to V_{EE}(max); V_{CC} = GND)

		–40°C			0°C			25°C			85°C			
Symbol	**Characteristic**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Unit**
I_{EE}	Power Supply Current		17	24		17	24		17	24		18	25	mA
V_{EE}	Power Supply Voltage	–3.0		–3.8	–3.0		–3.8	–3.0		–3.8	–3.0		–3.8	V
I_{IH}	Input HIGH Current			150			150			150			150	µA

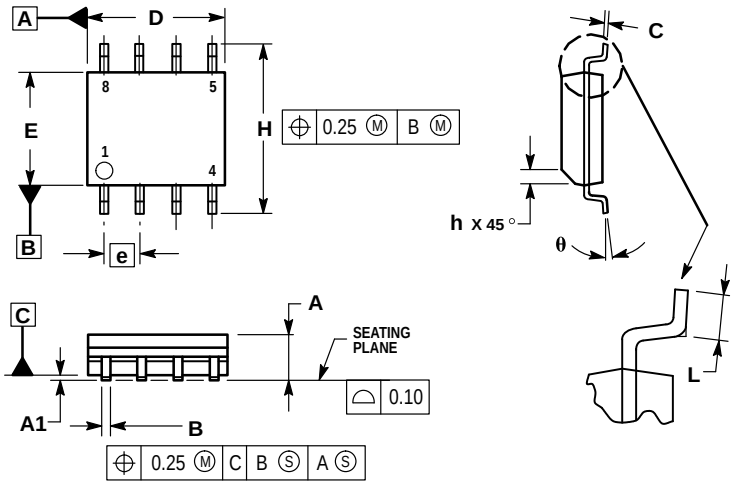
AC CHARACTERISTICS (V_{EE} = V_{EE}(min) to V_{EE}(max); V_{CC} = GND)

		–40°C			0°C			25°C			85°C			
Symbol	**Characteristic**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Min**	**Typ**	**Max**	**Unit**
t_{PLH} t_{PHL}	Propagation Delay to Output	310		580	310		580	310	445	580	320		590	ps
t_r t_f	Output Rise/Fall Times Q (20% – 80%)	230	400	550	230	400	550	230	400	550	230	400	550	ps

MOTOROLA

OUTLINE DIMENSIONS

D SUFFIX
PLASTIC SOIC PACKAGE
CASE 751–05
ISSUE S



NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. DIMENSIONS ARE IN MILLIMETERS.
3. DIMENSION D AND E DO NOT INCLUDE MOLD PROTRUSION.
4. MAXIMUM MOLD PROTRUSION 0.15 PER SIDE.
5. DIMENSION B DOES NOT INCLUDE MOLD PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.127 TOTAL IN EXCESS OF THE B DIMENSION AT MAXIMUM MATERIAL CONDITION.

	MILLIMETERS	
DIM	MIN	MAX
A	1.35	1.75
A1	0.10	0.25
B	0.35	0.49
C	0.18	0.25
D	4.80	5.00
E	3.80	4.00
e	1.27 BSC	
H	5.80	6.20
h	0.25	0.50
L	0.40	1.25
θ	0°	7°

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