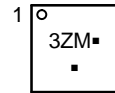


MARKING DIAGRAMS



*For additional marking information, refer to Application Note [AND8002/D](#).

ORDERING INFORMATION

Device	Package	Shipping†
MC100LVEL11DG	SOIC-8 (Pb-Free)	98 Units/Tube
MC100LVEL11DR2G	SOIC-8 (Pb-Free)	2500/Tape & Reel
MC100LVEL11DTG	TSSOP-8 (Pb-Free)	
MC100LVEL11DTR2G	TSSOP-8 (Pb-Free)	2500/Tape & Reel
MC100LVEL11MNR4G		1000/Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, [BRD8011/D](#).

MC100LEVEL11

MC100LVEL11

Table 4. LVPECL DC CHARACTERISTICS $V_{CC} = 3.3\text{ V}$; $V_{EE} = 0.0\text{ V}$ (Note 3)

Symbol	Characteristic	-40 C			25 C			95 C			Unit
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
I_{EE}	Power Supply Current		24	28		24	28		25	30	mA
V_{OH}	Output HIGH Voltage (Note 4)	2215	2295	2420	2275	2345	2420	2275	2345	2420	mV
V_{OL}	Output LOW Voltage (Note 4)	1470	1605	1745	1490	1595	1680	1490	1595	1680	mV
V_{IH}	Input HIGH Voltage (Single-Ended)	2135		2420	2135		2420	2135		2420	mV
V_{IL}	Input LOW Voltage (Single-Ended)	1490		1825	1490		1825	1490		1825	mV
V_{IHCMR}	Input HIGH Voltage Common Mode Range (Differential) (Note 8) $V_{pp} < 500\text{ mV}$ $V_{pp} \geq 500\text{ mV}$	1.2		3.1	1.1		3.1	1.1		3.1	V
		1.4		3.1	1.3		3.1	1.3		3.1	V
I_{IH}	Input HIGH Current			150			150			150	μA

I_{IL}

MC100LEVEL11

Table 6. AC CHARACTERISTICS $V_{CC} = 3.3\text{ V}$; $V_{EE} = 0.0\text{ V}$ or $V_{CC} = 0.0\text{ V}$; $V_{EE} = -3.3\text{ V}$ (Note 9)

Symbol	Characteristic	-40 C			25 C			95 C			Unit
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
f_{\max}	Maximum Toggle Frequency					1.0					GHz
t_{PLH} t_{PHL}	Propagation Delay to Output	235		385	255	330	405	285		435	ps
t_{SKEW}	Within-Device Skew (Note 10) Device-to-Device (Note 11) Duty Cycle Skew (Note 12)		5 10	20 150 20		5 10	20 150 20		5 10	20 150 20	ps
t_{JITTER}	Random Clock Jitter (RMS)					0.6					ps
V_{PP}	Input Swing (Note 13)	200		1000	200		1000	200		1000	mV
t_r t_f	Output Rise/Fall Times Q (20% – 80%)	120		320	120	220	320	120		320	ps

NOTE: Device will meet the specifications after thermal equilibrium has been established when mounted in a test socket or printed circuit board with maintained transverse airflow greater than 500 lpm.

9. V_{EE} can vary 0.3 V.

10. Within-device skew defined as identical transitions on similar paths through a device.

11. Device-to-device skew for identical transitions at identical V_{CC} levels.

12. Duty cycle skew is the difference between a t_{PLH} and t_{PHL} propagation delay through a device.

13. $V_{PP}(\min)$ is the minimum input swing for which AC parameters guaranteed. The device will function properly with input swings below 200 mV, however, AC delays may move outside of the specified range. The device has a DC gain of -40.

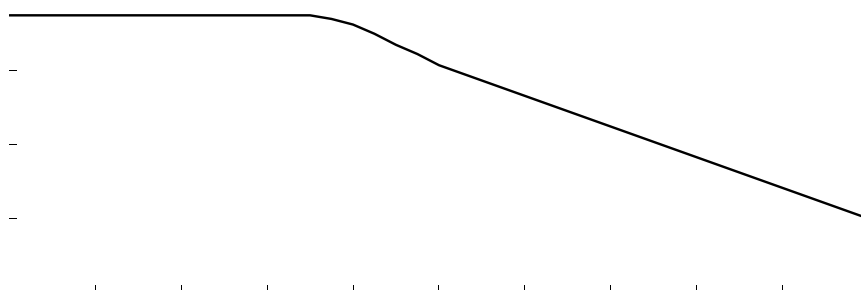
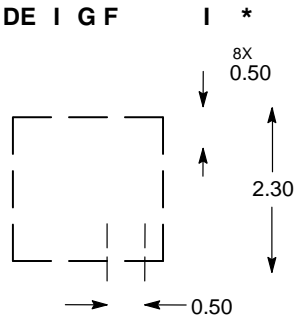


Figure 2. Output Swing versus Frequency

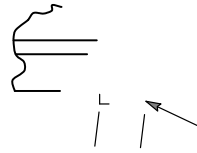
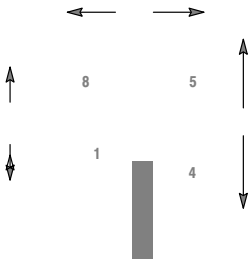


DIMENSIONS: MILLIMETERS

*For additional information on our Pb-Free strategy and soldering details, please download the [m\] □ Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.](#)

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