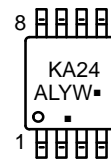


SOIC-8 NB **TSSOP-8**
D SUFFIX **DT SUFFIX**
CASE 751-07 **CASE 948R-02**

MARKING DIAGRAMS*



- A = Assembly Location
- L = Wafer Lot
- Y = Year
- W = Work Week
- M = Date Code
- = Pb-Free Package

SOIC-8 NB (Pb-Free)		
MC100EPT24DTG	-8	100 Units / Tube
(Pb-Free)		
MC100EPT24MNR4G	DFN8	1000 Tape & Reel
(Pb-Free)		

†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](#).

MC100EPT24

Table 3. MAXIMUM RATINGS

Symbol	Parameter	Condition 1	Condition 2	Rating	Unit
V_{CC}	Positive Power Supply	GND = 0 V	$V_{EE} = -3.3V$	3.8	V
V_{EE}	Negative Power Supply	GND = 0 V	$V_{CC} = 3.3V$	-3.8	V
V_{IN}	Input Voltage	GND = 0 V	$V_I \leq V_{CC}$	0 to V_{CC}	V
I_{out}	Output Current	Continuous Surge		50 100	mA
T_A	Operating Temperature Range			-40 to +85	°C
T_{stg}	Storage Temperature Range			-65 to +150	°C
θ_{JA}	Thermal Resistance (Junction-to-Ambient)	0 lfpm 50 lfpm	SOIC-8 NB SOIC-8 NB	190 130	°C/W
θ_{JC}	Thermal Resistance (Junction-to-Case)	Standard Board	SOIC-8 NB	41 to 44	°C/W
θ_{JA}	Thermal Resistance (Junction-to-Ambient)	0 lfpm 50 lfpm	TSSOP-8 TSSOP-8	185 140	°C/W
θ_{JC}	Thermal Resistance (Junction-to-Case)	Standard Board	TSSOP-8	41 to 44	°C/W
θ_{JA}	Thermal Resistance (Junction-to-Ambient)	0 lfpm 50 lfpm	DFN8 DFN8	129 84	°C/W
T_{sol}	Wave Solder (Pb-Free)			265	°C
θ_{JC}	Thermal Resistance (Junction-to-Case)	(Note 1)	DFN8	35 to 40	

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Table 6. AC CHARACTERISTICS ($V_{CC} = 0\text{ V}$; $V_{EE} = -3.0\text{ V}$ to -5.5 V or $V_{CC} = 3.0\text{ V}$ to 5.5 V ; $V_{EE} = 0\text{ V}$ (Note 1))

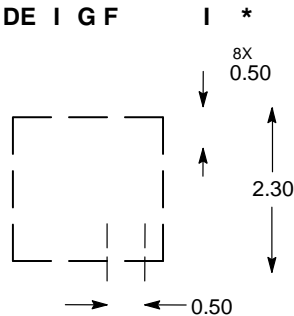
Symbol	Characteristic	-40°C			25°C			85°C			Unit
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
f_{\max}	Maximum Input Clock Frequency (Figure 2)		> 1			> 1			> 1		GHz
t_{PLH} , t_{PHL}	Propagation Delay to Output Differential (Note 2)	300	500	800	300	530	800	300	560	800	ps
t_{JITTER}	RMS Random Clock Jitter (Figure 2)		0.2	< 1		0.2	< 1		0.2	< 1	ps
t_r t_f	Output Rise/Fall Times (20% – 80%) @ 50 MHz Q, \bar{Q}	70	125	170	80	130	180	100	150	200	ps

MC100EPT24

DF 82[2, 0.5
CASE 506AA
ISSUE F

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CA E 4:1

DATE 04 MAY 2016



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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