3.3 V/5 V ECL Differential Receiver/Driver

MC10EP16, MC100EP16

TSSOP 8 DFN8
DT SUFFIX DFN8
CASE 948R 02

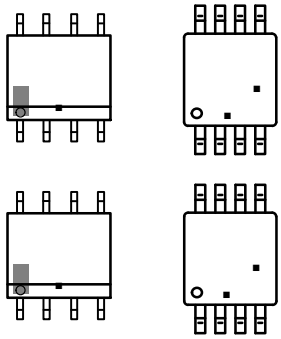
Description

The EP16 is a world class differential receiver/driver. The device is functionally equivalent to the EL16 and LVEL16 devices with higher performance capabilities. With output transition times significantly faster than the EL16 and LVEL16, the EP16 is ideally suited for interfacing with high frequency sources.

The V_{BB} pin, an internally generated voltage supply, is available to this device only. For single-ended input conditions, the unused differential input is connected to V_{BB} as a switching reference voltage. V_{BB} may also rebias AC coupled inputs. When used, decouple V_{BB} and V_{CC} via a 0.01 μF capacitor and limit current sourcing or sinking to 0.5 mA. When not used, V_{BB} should be left open.

Under open input conditions (pulled to V_{EE}) internal input clamps will force A9r output LOW.P u b . C

MARKING DIAGRAM



ORDERING INFORMATION

Table 3. MAXIMUM RATINGS

Symbol	Parameter	Condition 1	Condition 2	Rating	Unit

Table 5. 10EP DC CHARACTERISTICS, PECL

Symbol	Characteristic	40°C			25°C			85°C			Unit
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	

Table 7. 100EP DC CHARACTERISTICS, PECL

Symbol	Characteristic	40°C			25°C			85°C			Unit
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
											μ
	—	–			–			–			μ

–

Ω –

Table 8. 100EP DC CHARACTERISTICS, PECL

Symbol	Characteristic	40°C			25°C			85°C	
		Min	Typ	Max	Min	Typ	Max		

Table 9. 100EP DC CHARACTERISTICS, NECL – –

Symbol	Characteristic	40°C			25°C			85°C			Unit
		Min	Typ	Max	Min	Typ	Max	Min	Typ	Max	
		–	–	–	–	–	–	–	–	–	
		–	–	–	–	–	–	–	–	–	
		–		–	–		–	–		–	

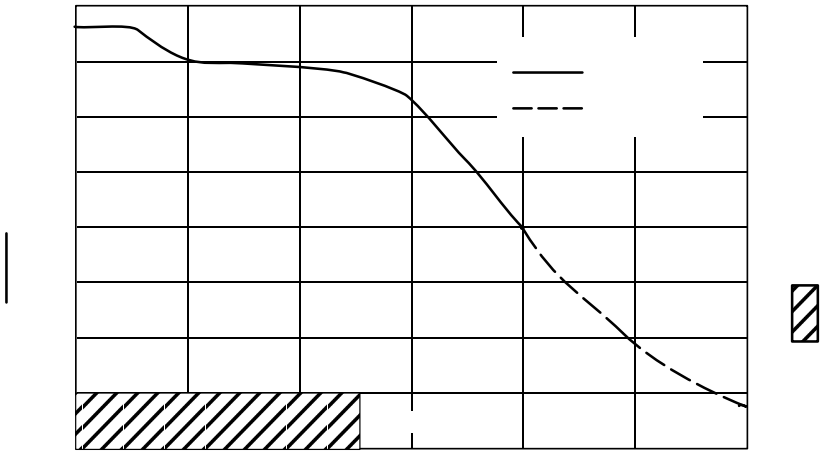


Figure 2. F_{max}/Jitter

DF 8 2□2, 0.5
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DATE 04 MAY 2016

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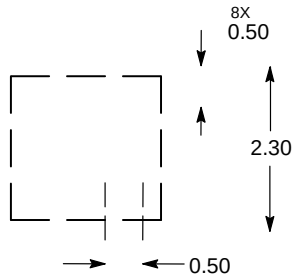
CA E 4:1

DE I G F I *

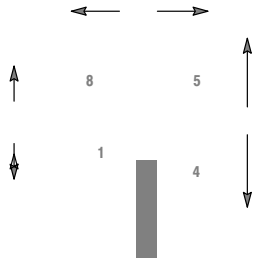


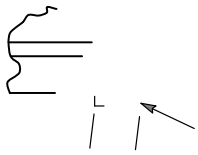
DIMENSIONS: MILLIMETERS

*For additional information on our Pb−Free strategy and soldering details, please download the m1 □ Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

SOIC 8 NB
CASE 751−07
ISSUE AK

DATE 16 FEB 2011





SEATING
PLANE

TSSOP 8 3.00x3.00x0.95
CASE 948R−02
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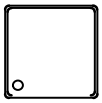

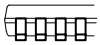

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.90	3.10	0.114	0.122
B				
