

3.3 V/5 V ECL Differential High Gain Receiver/Driver

MC100EP16VA

Description

The EP16VA is a world-class differential receiver/driver. The device is functionally equivalent to the EP16 and LVEP16 devices but with high gain output. Q_{HG} and \overline{Q}_{HG} outputs have a DC gain several times larger than the DC gain of an EP16.

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

MC100EP16VA

Table 3. MAXIMUM RATINGS

Symbol	Parameter	Condition 1	Condition 2	Rating	Unit
				-	
			∞		

MC100EP16VA

Table 6. 100EP DC CHARACTERISTICS, NECL

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

MC100EP16VA

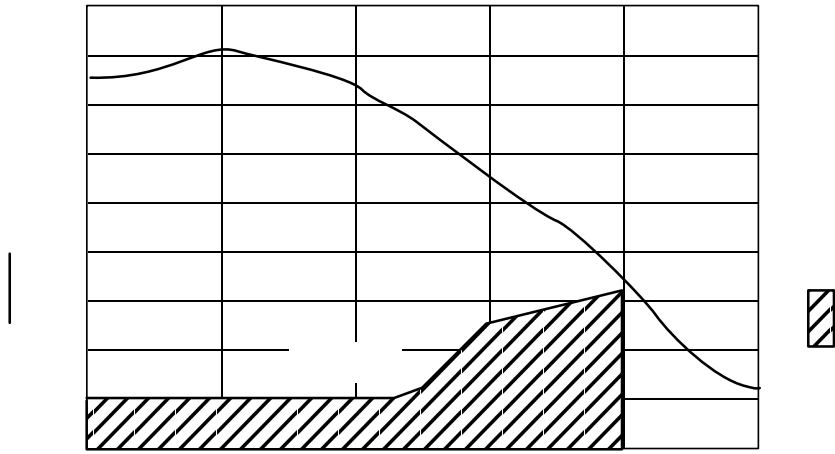


Figure 2. $F_{max}/Jitter$

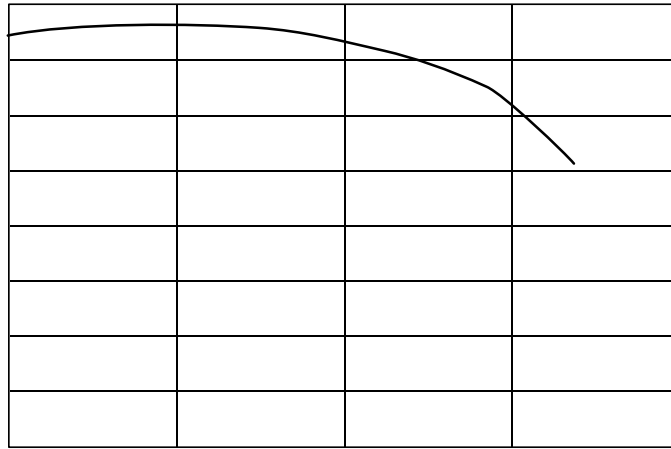


Figure 3. Gain vs. Input Voltage (50 MHz)

-X-

- - - -

⊕ 0. (0.010) ○ ○

-Y-

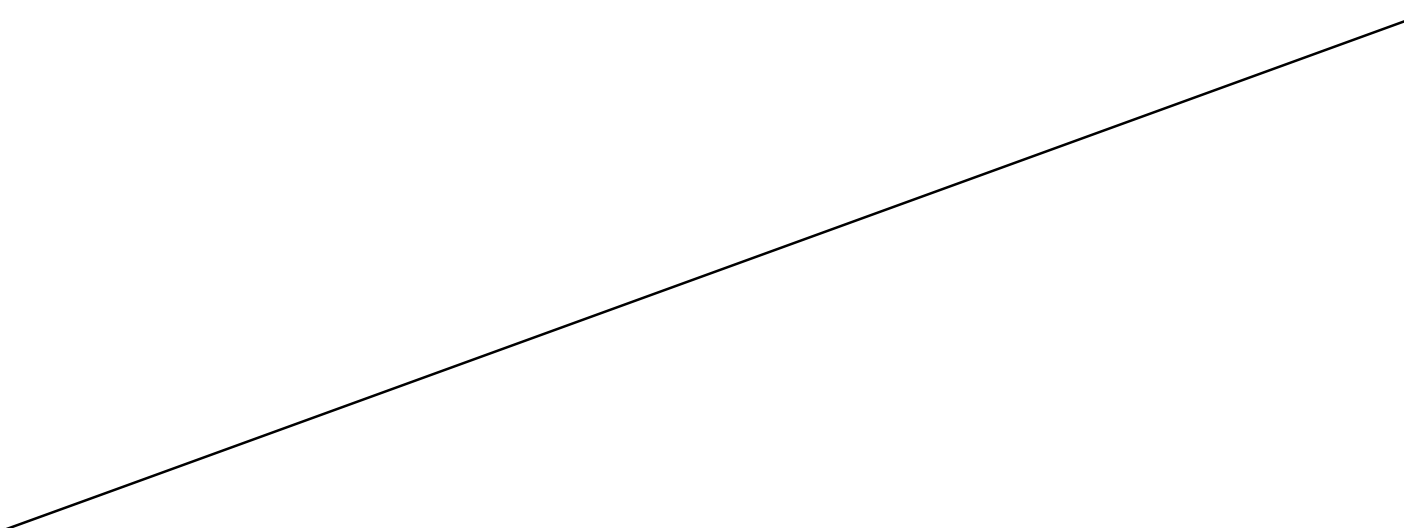
- - - -

G

-Z-

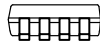
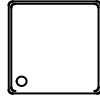
C	1.35	1.75	0.053	0.069
D	0.33	0.51	0.013	0.020
G	1.27 BSC		0.050 BSC	
H	0.10	0.25	0.004	0.010
J	0.19	0.25	0.007	0.010
K	0.40	1.27	0.016	0.050
M	0	8	0	8
N	0.25	0.50	0.010	0.020
S	5.80	6.20	0.228	0.244

0. (0.010) ○ 101100 1.000 0.1 1011. 100 0001.1 1001 1 0()01.1 100111.1 100000 5.80 6.20 0.228 0.244 1.0 0 1000 0.)



TSSOP 8
CASE 948R-02
ISSUE A

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DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A				

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