

-3.3V / -5V T ECL I LVPECL/PECL O T a a MC10EP90, MC100EP90

Description

The MC10/100EP90 is a TRIPLE ECL TO LVPECL/PECL

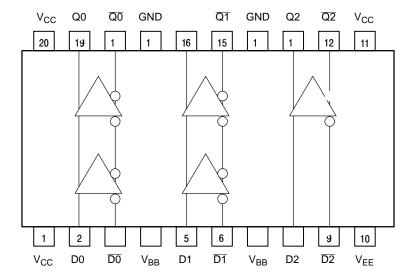


Table 4. MAXIMUM RATINGS

Symbol	Parameter	Condition 1	Condition 2	Rating	Unit
V _{CC}	PECL Mode Power Supply	GND = 0 V		6	V
V _{EE}	NECL Mode Power Supply	GND = 0 V		-6	V
V _I	PECL Mode Input Voltage NECL Mode Input Voltage	GND = 0 V GND = 0 V	$\begin{array}{c} V_{I} \leq V_{CC} \\ V_{I} \geq V_{EE} \end{array}$	6 -6	•

Table 7. 100EP DC CHARACTERISTICS V_{CC} = 3.3 V, V_{EE} = -5.5 V to -3.0 V; GND = 0 V (Note 8)

		-40 C			25 C			85 C	
Symbol	Characteristic	Min	Тур	Max	Min	Тур	Max		Unit

Table 9. AC CHARACTERISTICS $V_{EE} = -3.0 \text{ V}$ to -5.5 V; $V_{CC} = 3.0 \text{ V}$ to 5.5 V; GND = 0 V (Note 14)

			-40 C			25 C			85 C		
Symbol	Characteristic	Min	Тур	Max	Min	Тур	Max	Min	Тур	Max	Unit
f _{max}	Maximum Frequency (See Figure 2 F _{max} /JITTER)		> 3			> 3			> 3		GHz
t _{PLH} , t _{PHL}	Propagation Delay to Output Differential	170	240	310	200	260	340	230	300	370	ps
t _{SKEW}	Duty Cycle Skew (Note 15)		5.0	20		5.0	20		5.0	20	ps
	Within Device Skew Q, Q Device to Device Skew (Note 15)			80 140			80 140			80 140	
t _{JITTER}	Cycle-to-Cycle Jitter (See Figure 2 F _{max} /JITTER)		0.2	< 1		0.2	< 1		0.2	< 1	ps
V _{PP}	Input Voltage Swing (Differential Configuration)	150	800	1200	150	800	1200	150	800	1200	mV
t _r	,	•	•	•	•	•	•	•	•	•	

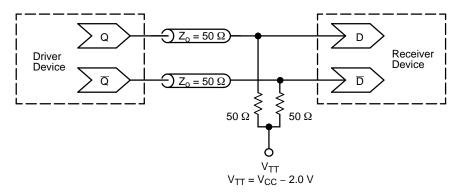


Figure 3. Typical Termination for Output Driver and Device Evaluation (See Application Note AND8020/D – Termination of ECL Logic Devices.)

Resource Reference of Application Notes

AN1405/D - ECL Clock Distribution Techniques

AN1406/D - Designing with PECL (ECL at +5.0 V)

AN1503/D - ECLinPS™ I/O SPiCE Modeling Kit

AN1504/D - Metastability and the ECLinPS Family

AN1568/D - Interfacing Between LVDS and ECL

AND8001/D - The ECL Translator Guide

AND8001/D - Odd Number Counters Design

AND8002/D - Marking and Date Codes

AND8020/D - Termination of ECL Logic Devices

AND8066/D - Interfacing with ECLinPS

AND8090/D - AC Characteristics of ECL Devices



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