

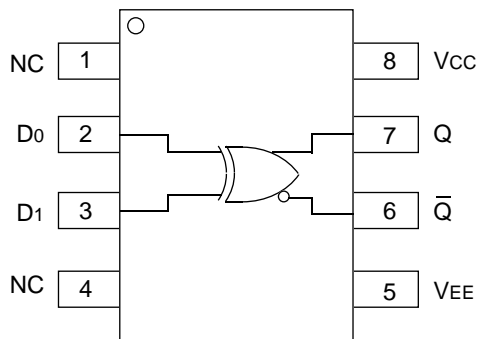
**FEATURES**

- 260ps propagation delay
- High bandwidth output transitions
- Internal 75KΩ input pull-down resistors
- Available in 8-pin SOIC package

**DESCRIPTION**

The SY10/100EL07 are 2-input XOR/XNOR gates. These devices are functionally equivalent to the E107 devices, with higher performance capabilities. With propagation delays and output transition times significantly faster than the E107, the EL07 is ideally suited for those applications which require the ultimate in AC performance.

**PIN CONFIGURATION/BLOCK DIAGRAM**



**SOIC  
TOP VIEW**

**PIN NAMES**

Pin	Function
D0, D1	Data Inputs
Q	Data Outputs

### DC ELECTRICAL CHARACTERISTICS

VEE = VEE (Min.) to VEE (Max.); VCC = GND

Symbol	Parameter	TA = -40°C			TA = 0°C			TA = +25°C			TA = +85°C			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
IEE	Power Supply Current													mA
	10EL	—	14	17	11	14	17	11	14	17	11	14	17	
	100EL	—	14	17	11	14	17	11	14	17	13	16	20	
VEE	Power Supply Voltage													V
	10EL	-4.75	-5.2	-5.5	-4.75	-5.2	-5.5	-4.75	-5.2	-5.5	-4.75	-5.2	-5.5	
	100EL	-4.20	-4.5	-5.5	-4.20	-4.5	-5.5	-4.20	-4.5	-5.5	-4.20	-4.5	-5.5	
IIH	Input HIGH Current													μA
	D0	—	—	250	—	—	250	—	—	250	—	—	250	
	D1	—	—	150	—	—	150	—	—	150	—	—	150	

### AC ELECTRICAL CHARACTERISTICS

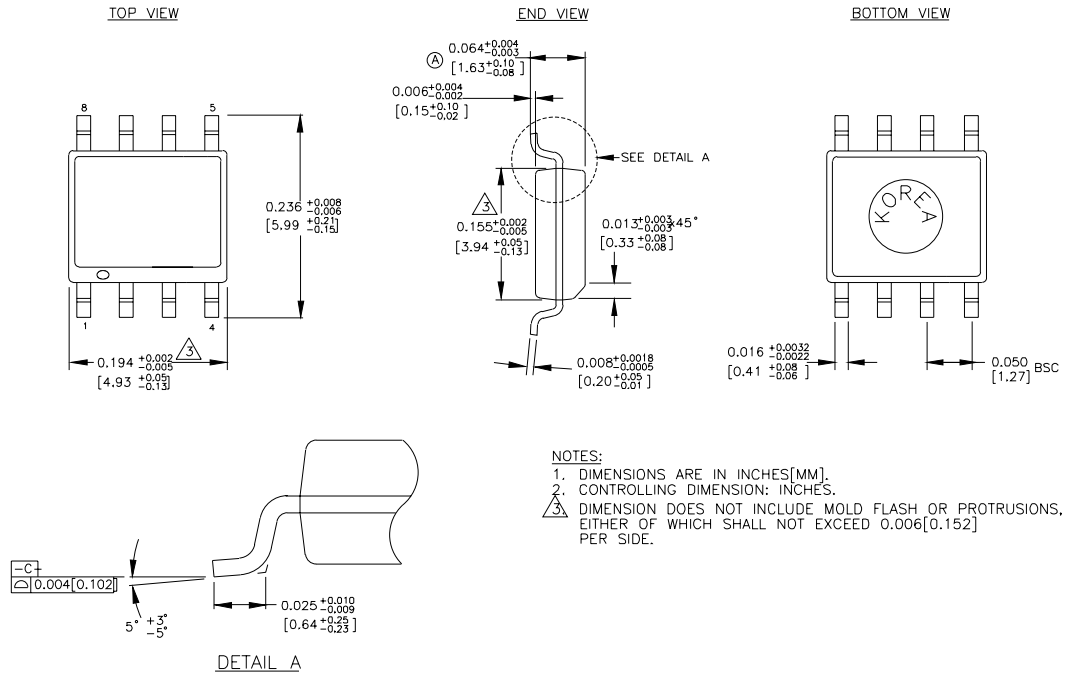
VEE = VEE (Min.) to VEE (Max.); VCC = GND

Symbol	Parameter	TA = -40°C			TA = 0°C			TA = +25°C			TA = +85°C			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
tPLH tPHL	Propagation Delay to Output D	90	250	435	140	250	385	150	260	395	170	280	415	ps
tr tf	Output Rise/Fall Times Q (20% to 80%)	100	225	350	100	225	350	100	225	350	100	225	350	ps

### PRODUCT ORDERING CODE

Ordering Code	Package Type	Operating Range
SY10EL07ZC	Z8-1	Commercial
SY10EL07ZCTR	Z8-1	Commercial
SY100EL07ZC	Z8-1	Commercial
SY100EL07ZCTR	Z8-1	Commercial

**8 LEAD SOIC .150" WIDE (Z8-1)**



NOTES:  
 1. DIMENSIONS ARE IN INCHES[MM].  
 2. CONTROLLING DIMENSION: INCHES.  
 3. DIMENSION DOES NOT INCLUDE MOLD FLASH OR PROTRUSIONS, EITHER OF WHICH SHALL NOT EXCEED 0.006[0.152] PER SIDE.

Rev. 03

---

**MICREL-SYNERGY 3250 SCOTT BOULEVARD SANTA CLARA CA 95054 USA**

TEL + 1 (408) 980-9191 FAX + 1 (408) 914-7878 WEB <http://www.micrel.com>

This information is believed to be accurate and reliable, however no responsibility is assumed by Micrel for its use nor for any infringement of patents or other rights of third parties resulting from its use. No license is granted by implication or otherwise under any patent or patent right of Micrel Inc.

© 2000 Micrel Incorporated

---