



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





## 2-INPUT XOR/XNOR

**SY10EL07  
SY100EL07**

### FEATURES

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

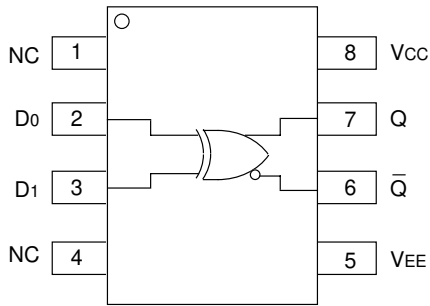
### DESCRIPTION

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 NAMES

Pin	Function
D0, D1	Data Inputs
Q	Data Outputs

**PACKAGE/ORDERING INFORMATION**



**8-Pin SOIC (Z8-1)**

**Ordering Information<sup>(1)</sup>**

Part Number	Package Type	Operating Range	Package Marking	Lead Finish
SY10EL07ZC	Z8-1	Commercial	HEL07	Sn-Pb
SY10EL07ZCTR <sup>(2)</sup>	Z8-1	Commercial	HEL07	Sn-Pb
SY100EL07ZC	Z8-1	Commercial	XEL07	Sn-Pb
SY100EL07ZCTR <sup>(2)</sup>	Z8-1	Commercial	XEL07	Sn-Pb
SY10EL07ZI	Z8-1	Industrial	HEL07	Sn-Pb
SY10EL07ZITR <sup>(2)</sup>	Z8-1	Industrial	HEL07	Sn-Pb
SY100EL07ZI	Z8-1	Industrial	XEL07	Sn-Pb
SY100EL07ZITR <sup>(2)</sup>	Z8-1	Industrial	XEL07	Sn-Pb
SY10EL07ZG <sup>(3)</sup>	Z8-1	Industrial	HEL07 with Pb-Free bar-line indicator	Pb-Free NiPdAu
SY10EL07ZGTR <sup>(2, 3)</sup>	Z8-1	Industrial	HEL07 with Pb-Free bar-line indicator	Pb-Free NiPdAu
SY100EL07ZG <sup>(3)</sup>	Z8-1	Industrial	XEL07 with Pb-Free bar-line indicator	Pb-Free NiPdAu
SY100EL07ZGTR <sup>(2, 3)</sup>	Z8-1	Industrial	XEL07 with Pb-Free bar-line indicator	Pb-Free NiPdAu

**Notes:**

1. Contact factory for die availability. Dice are guaranteed at T<sub>A</sub> = 25°C, DC Electricals only.
2. Tape and Reel.
3. Pb-Free package is recommended for new designs.

### DC ELECTRICAL CHARACTERISTICS

V<sub>EE</sub> = V<sub>EE</sub> (Min.) to V<sub>EE</sub> (Max.); V<sub>CC</sub> = GND

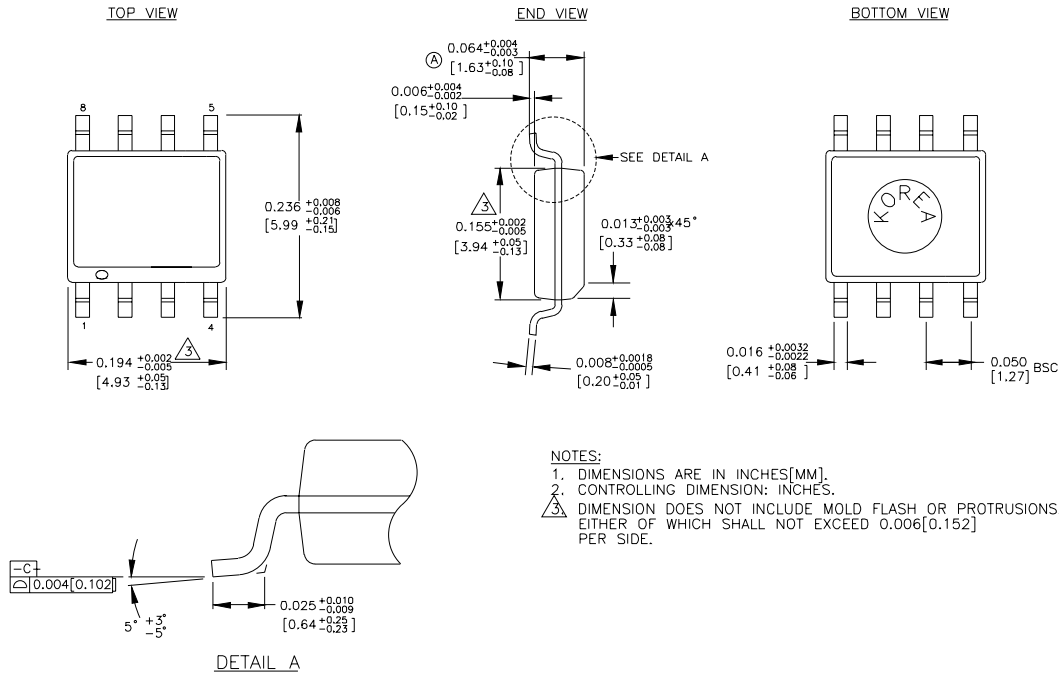
Symbol	Parameter	T <sub>A</sub> = -40°C			T <sub>A</sub> = 0°C			T <sub>A</sub> = +25°C			T <sub>A</sub> = +85°C			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
I <sub>EE</sub>	Power Supply Current													mA
	10EL	—	14	17	11	14	17	11	14	17	11	14	17	
	100EL	—	14	17	11	14	17	11	14	17	13	16	20	
V <sub>EE</sub>	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	
I <sub>IH</sub>	Input HIGH Current													μA
	D <sub>0</sub>	—	—	250	—	—	250	—	—	250	—	—	250	
	D <sub>1</sub>	—	—	150	—	—	150	—	—	150	—	—	150	

### AC ELECTRICAL CHARACTERISTICS

V<sub>EE</sub> = V<sub>EE</sub> (Min.) to V<sub>EE</sub> (Max.); V<sub>CC</sub> = GND

Symbol	Parameter	T <sub>A</sub> = -40°C			T <sub>A</sub> = 0°C			T <sub>A</sub> = +25°C			T <sub>A</sub> = +85°C			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
t <sub>PD</sub>	Propagation Delay to Output D	90	250	435	140	250	385	150	260	395	170	280	415	ps
t <sub>r</sub> t <sub>f</sub>	Output Rise/Fall Times Q (20% to 80%)	100	225	350	100	225	350	100	225	350	100	225	350	ps

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



Rev. 03

**MICREL, INC. 2180 FORTUNE DRIVE SAN JOSE, CA 95131 USA**

TEL + 1 (408) 944-0800 FAX + 1 (408) 474-1000 WEB <http://www.micrel.com>

The information furnished by Micrel in this datasheet is believed to be accurate and reliable. However, no responsibility is assumed by Micrel for its use. Micrel reserves the right to change circuitry and specifications at any time without notification to the customer.

Micrel Products are not designed or authorized for use as components in life support appliances, devices or systems where malfunction of a product can reasonably be expected to result in personal injury. Life support devices or systems are devices or systems that (a) are intended for surgical implant into the body or (b) support or sustain life, and whose failure to perform can be reasonably expected to result in a significant injury to the user. A Purchaser's use or sale of Micrel Products for use in life support appliances, devices or systems is at Purchaser's own risk and Purchaser agrees to fully indemnify Micrel for any damages resulting from such use or sale.

© 2006 Micrel, Incorporated.