SY10EL07ZI Datasheet

DiGi Electronics Part Number	SY10EL07ZI-DG
Manufacturer	Microchip Technology
Manufacturer Product Number	SY10EL07ZI
Description	IC GATE XOR/XNOR 2-INPUT 8-SOIC
Detailed Description	XOR/XNOR Gate Configurable 1 Circuit 2 Input 8-SOIC

https://www.DiGi-Electronics.com

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
SY10EL07ZI	Microchip Technology
Series:	Product Status:
10EL	Discontinued at Digi-Key
Logic Type:	Number of Circuits:
XOR/XNOR Gate	1
Number of Inputs:	Schmitt Trigger Input:
2	No
Output Type:	Current - Output High, Low:
Differential	-
Voltage - Supply:	Operating Temperature:
4.75V ~ 5.5V	-40°C ~ 85°C
Mounting Type:	Package / Case:
Surface Mount	8-SOIC (0.154", 3.90mm Width)
Supplier Device Package:	Base Product Number:
8-SOIC	10EL07

Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
RoHS non-compliant	1 (Unlimited)
REACH Status:	ECCN:
REACH Unaffected	EAR99
HTSUS:	
8542.39.0001	

2-INPUT XOR/XNOR

SY10EL07
SY100EL07

FEATURES

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

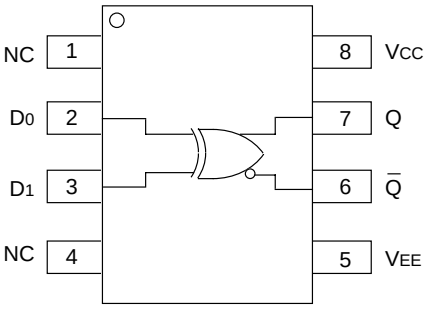
DESCRIPTION

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 NAMES

Pin	Function
D_0, D_1	Data Inputs
Q	Data Outputs

PACKAGE/ORDERING INFORMATION



8-Pin SOIC (Z8-1)

Ordering Information[1]

Part Number	Package Type	Operating Range	Package Marking	Lead Finish
SY10EL07ZC	Z8-1	Commercial	HEL07	Sn-Pb
SY10EL07ZCTR[2]	Z8-1	Commercial	HEL07	Sn-Pb
SY100EL07ZC	Z8-1	Commercial	XEL07	Sn-Pb
SY100EL07ZCTR[2]	Z8-1	Commercial	XEL07	Sn-Pb
SY10EL07ZI	Z8-1	Industrial	HEL07	Sn-Pb
SY10EL07ZITR[2]	Z8-1	Industrial	HEL07	Sn-Pb
SY100EL07ZI	Z8-1	Industrial	XEL07	Sn-Pb
SY100EL07ZITR[2]	Z8-1	Industrial	XEL07	Sn-Pb
SY10EL07ZG[3]	Z8-1	Industrial	HEL07 with Pb-Free bar-line indicator	Pb-Free NiPdAu
SY10EL07ZGTR[2, 3]	Z8-1	Industrial	HEL07 with Pb-Free bar-line indicator	Pb-Free NiPdAu
SY100EL07ZG[3]	Z8-1	Industrial	XEL07 with Pb-Free bar-line indicator	Pb-Free NiPdAu
SY100EL07ZGTR[2, 3]	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_A = 25°C, DC Electricals only.
2. Tape and Reel.
3. Pb-Free package is recommended for new designs.

DC ELECTRICAL CHARACTERISTICS

V_{EE} = V_{EE} (Min.) to V_{EE} (Max.); V_{CC} = GND

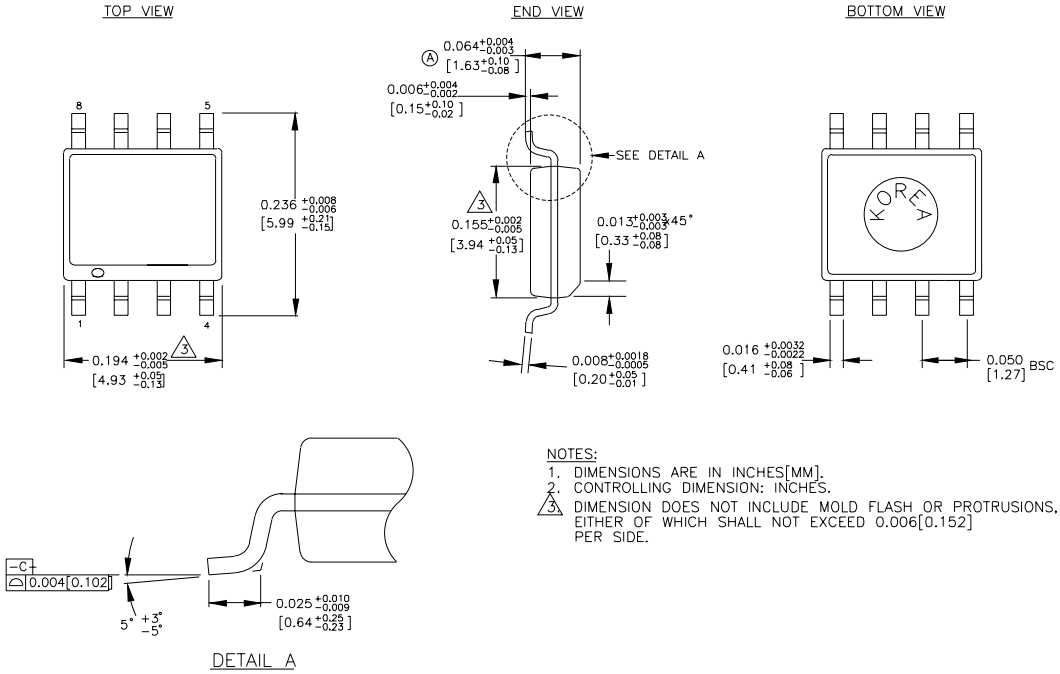
Symbol	Parameter	T_A = –40°C			T_A = 0°C			T_A = +25°C			T_A = +85°C			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
I_{EE}	Power Supply Current													mA
	10EL	—	14	17	11	14	17	11	14	17	11	14	17	
	100EL	—	14	17	11	14	17	11	14	17	13	16	20	
V_{EE}	Power Supply Voltage													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_{IH}	Input HIGH Current													µA
	D_0	—	—	250	—	—	250	—	—	250	—	—	250	
	D_1	—	—	150	—	—	150	—	—	150	—	—	150	

AC ELECTRICAL CHARACTERISTICS

V_{EE} = V_{EE} (Min.) to V_{EE} (Max.); V_{CC} = GND

Symbol	Parameter	T_A = –40°C			T_A = 0°C			T_A = +25°C			T_A = +85°C			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
t_{PD}	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

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



Rev. 03

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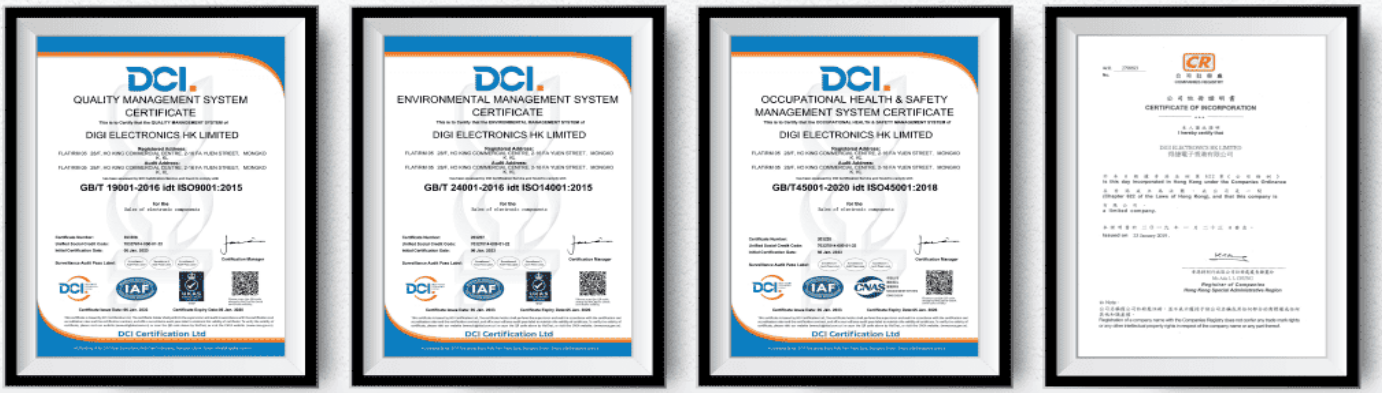

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