

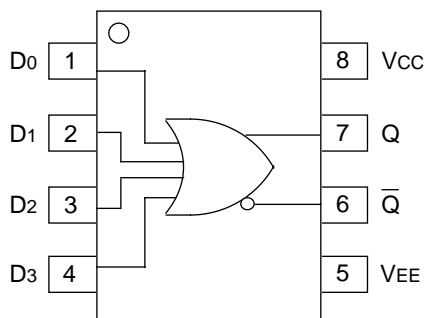
FEATURES

- 230ps propagation delay
- High bandwidth output transitions
- Internal 75K Ω input pull-down resistors
- Available in 8-pin SOIC package

DESCRIPTION

The SY10/100EL01 are 4-input OR/NOR gates. These devices are functionally equivalent to the E101 devices, with higher performance capabilities. With propagation delays and output transition times significantly faster than the E101, the EL01 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–D3	Data Inputs
Q	Data Outputs

DC ELECTRICAL CHARACTERISTICSV_{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	—	—	150	—	—	150	—	—	150	—	—	150	μA

AC ELECTRICAL CHARACTERISTICSV_{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 _{PLH} t _{PHL}	Propagation Delay to Output D	70	220	370	120	220	320	130	230	330	150	250	350	ps
t _r t _f	Output Rise/Fall Times Q (20% to 80%)	70	225	350	100	225	350	100	225	350	100	225	350	ps

PRODUCT ORDERING CODE

Ordering Code	Package Type	Operating Range	Marking Code
SY10EL01ZC	Z8-1	Commercial	HEL01
SY10EL01ZCTR*	Z8-1	Commercial	HEL01
SY100EL01ZC	Z8-1	Commercial	XEL01
SY100EL01ZCTR*	Z8-1	Commercial	XEL01

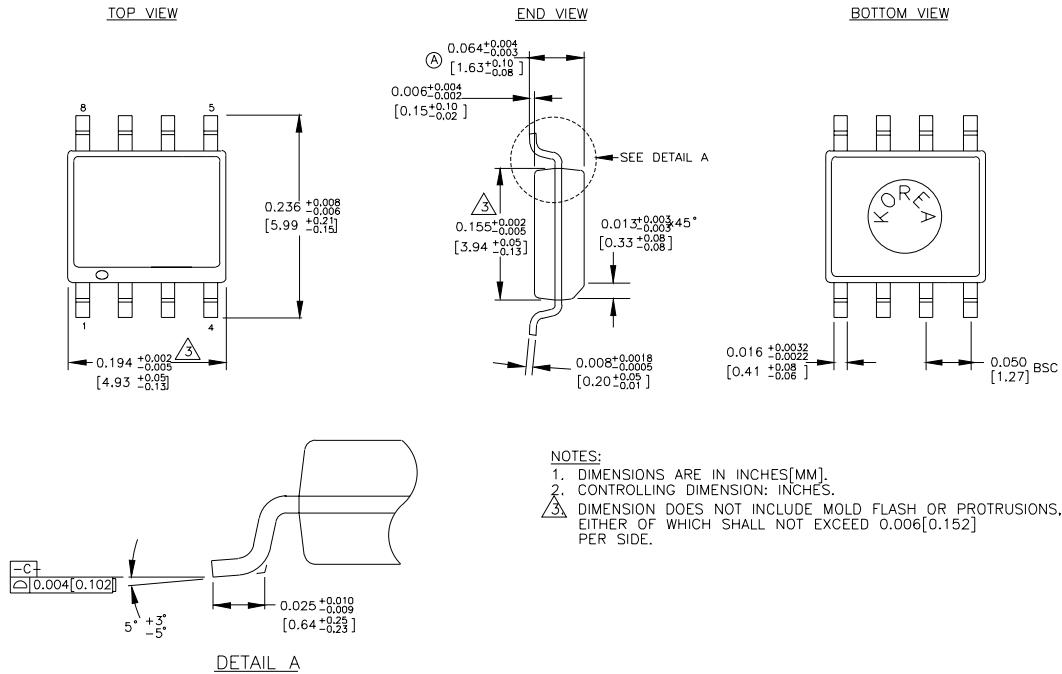
*Tape and Reel

Note 1. Recommended for new designs.

Ordering Code	Package Type	Operating Range	Marking Code
SY10EL01ZI ⁽¹⁾	Z8-1	Industrial	HEL01
SY10EL01ZITR ^{*(1)}	Z8-1	Industrial	HEL01
SY100EL01ZI ⁽¹⁾	Z8-1	Industrial	XEL01
SY100EL01ZITR ^{*(1)}	Z8-1	Industrial	XEL01

*Tape and Reel

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



Rev. 03

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