### 2:1 MULTIPLEXER

SY10EL58 SY100EL58 FINAL

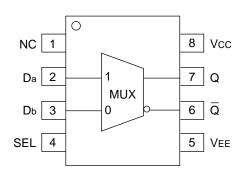
### **FEATURES**

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

### **DESCRIPTION**

The SY10/100EL58 are 2:1 multiplexers. These devices are functionally equivalent to the E158 devices, with higher performance capabilities. With propagation delays and output transition times significantly faster than the E158, the EL58 is ideally suited for those applications which require the ultimate in AC performance.

### PIN CONFIGURATION/BLOCK DIAGRAM



SOIC TOP VIEW

#### **TRUTH TABLE**

SEL	Data					
Н	а					
L	b					

### **PIN NAMES**

Pin	Function					
Da, Db	Data Inputs					
Q	Data Outputs					
SEL	Select Input					

# DC ELECTRICAL CHARACTERISTICS

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

		T	A = -40°	$^{\circ}$ C TA = 0 $^{\circ}$ C TA = +25 $^{\circ}$ C		Č.	T							
Symbol	Parameter	Min.	Тур.	Max.	Min.	Тур.	Max.	Min.	Тур.	Max.	Min.	Тур.	Max.	Unit
lee	Power Supply Current													mA
	10EL	l —	14	17	11	14	17	11	14	17	11	14	17	
	100EL	_	14	17	11	14	17	11	14	17	13	16	19	
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	
IIН	Input HIGH Current	_	_	150	_	_	150	_	_	150	_	_	150	μΑ

## **AC ELECTRICAL CHARACTERISTICS**

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

		TA = -40°C		TA = 0°C			TA = +25°C			TA = +85°C				
Symbol	Parameter	Min.	Тур.	Max.	Unit									
tPLH tPHL	Propagation Delay to Output D	60 90	220 250	380 410	110 140	220 250	330 360	120 150	230 260	340 370	140 170	250 280	360 390	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	Marking Code		
SY10EL58ZC	Z8-1	Commercial	HEL58		
SY10EL58ZCTR*	Z8-1	Commercial	HEL58		
SY100EL58ZC	Z8-1	Commercial	XEL58		
SY100EL58ZCTR*	Z8-1	Commercial	XEL58		

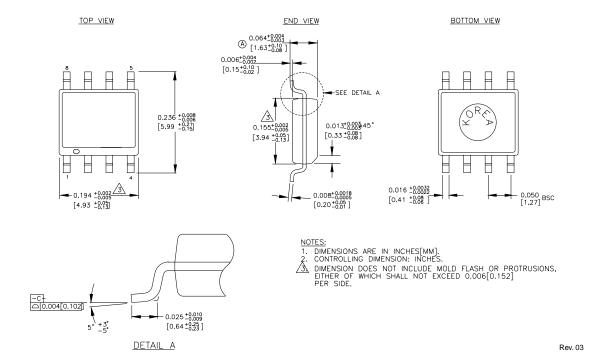
Ordering Code	Package Type	Operating Range	Marking Code		
SY10EL58ZI <sup>(1)</sup>	Z8-1	Industrial	HEL58		
SY10EL58ZITR*(1)	Z8-1	Industrial	HEL58		
SY100EL58ZI <sup>(1)</sup>	Z8-1	Industrial	XEL58		
SY100EL58ZITR*(1)	Z8-1	Industrial	XEL58		

Note 1. Recommended for new designs.

<sup>\*</sup>Tape and Reel

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



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