

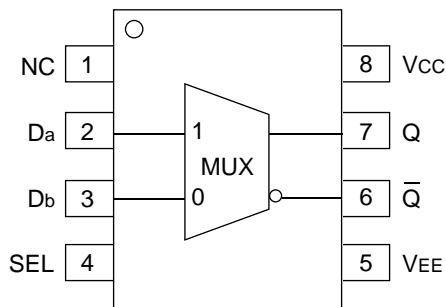
FEATURES

- 230ps propagation delay
- High bandwidth output transitions
- Internal 75KΩ 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 |
|-----|------|
| H | a |
| L | b |

PIN NAMES

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

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 | 19 | |
| 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 |

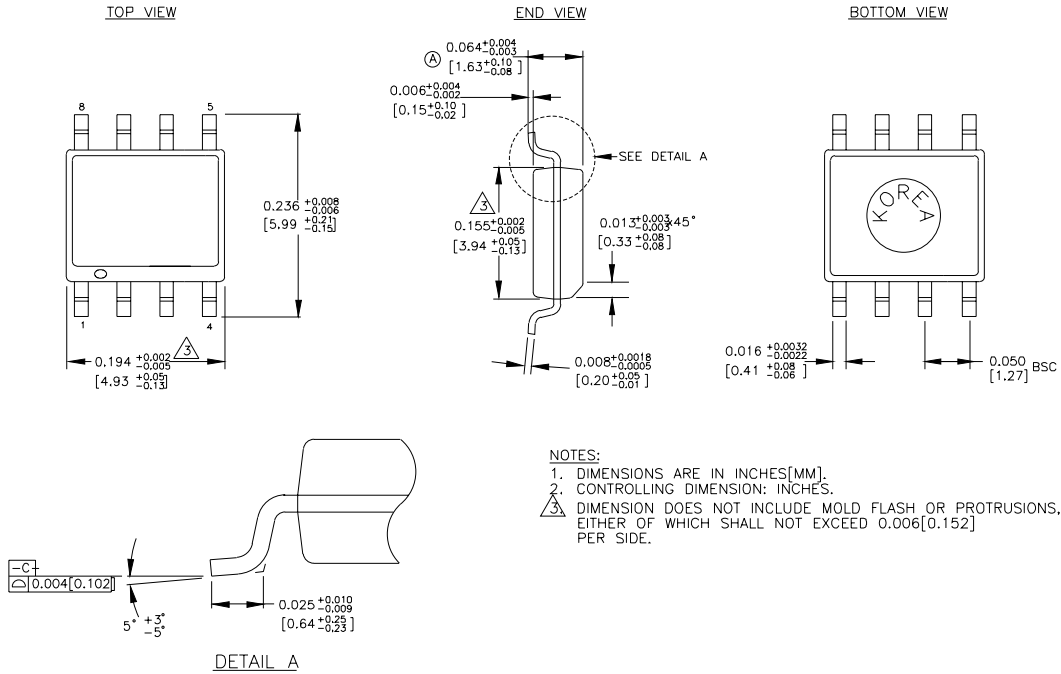
AC ELECTRICAL CHARACTERISTICSV_{EE} = V_{EE} (Min.) to V_{EE} (Max.); V_{CC} = GND

| 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} | Propagation Delay to Output D | 60 | 220 | 380 | 110 | 220 | 330 | 120 | 230 | 340 | 140 | 250 | 360 | ps |
| t _{PHL} | | 90 | 250 | 410 | 140 | 250 | 360 | 150 | 260 | 370 | 170 | 280 | 390 | |
| t _r t _f | 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 |
|---------------|--------------|-----------------|
| SY10EL58ZC | Z8-1 | Commercial |
| SY10EL58ZCTR | Z8-1 | Commercial |
| SY100EL58ZC | Z8-1 | Commercial |
| SY100EL58ZCTR | 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

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