



LOW-IMPEDANCE DRIVER

SY10EL12
SY100EL12

FEATURES

- 290ps propagation delay
- Dual outputs for 25Ω drive applications
- Internal 75KΩ input pull-down resistors
- Available in 8-pin SOIC package

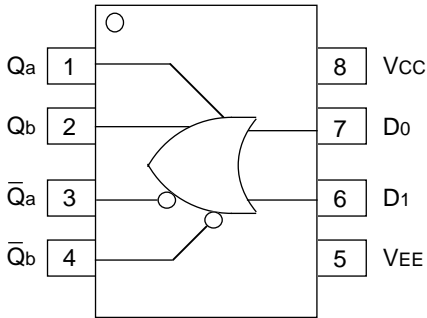
DESCRIPTION

The SY10/100EL12 are low-impedance drive buffers. With two pairs of OR/NOR outputs, the devices are ideally suited for high drive applications such as memory addressing. These devices are functionally equivalent to the E112 devices, with higher performance capabilities. With propagation delays significantly faster than the E112, the EL12 is ideally suited for those applications which require the ultimate in AC performance.

PIN NAMES

| Pin | Function |
|--------|--------------|
| D0, D1 | Data Inputs |
| Qa, Qb | Data Outputs |

PACKAGE/ORDERING INFORMATION



8-Pin SOIC (Z8-1)

Ordering Information⁽¹⁾

| Part Number | Package Type | Operating Range | Package Marking | Lead Finish |
|---------------------------------|--------------|-----------------|---------------------------------------|----------------|
| SY10EL12ZC | Z8-1 | Commercial | HEL12 | Sn-Pb |
| SY10EL12ZCTR ⁽²⁾ | Z8-1 | Commercial | HEL12 | Sn-Pb |
| SY100EL12ZC | Z8-1 | Commercial | XEL12 | Sn-Pb |
| SY100EL12ZCTR ⁽²⁾ | Z8-1 | Commercial | XEL12 | Sn-Pb |
| SY10EL12ZI | Z8-1 | Industrial | HEL12 | Sn-Pb |
| SY10EL12ZITR ⁽²⁾ | Z8-1 | Industrial | HEL12 | Sn-Pb |
| SY100EL12ZI | Z8-1 | Industrial | XEL12 | Sn-Pb |
| SY100EL12ZITR ⁽²⁾ | Z8-1 | Industrial | XEL12 | Sn-Pb |
| SY10EL12ZG ⁽³⁾ | Z8-1 | Industrial | HEL12 with Pb-Free bar-line indicator | Pb-Free NiPdAu |
| SY10EL12ZGTR ^(2, 3) | Z8-1 | Industrial | HEL12 with Pb-Free bar-line indicator | Pb-Free NiPdAu |
| SY100EL12ZG ⁽³⁾ | Z8-1 | Industrial | XEL12 with Pb-Free bar-line indicator | Pb-Free NiPdAu |
| SY100EL12ZGTR ^(2, 3) | Z8-1 | Industrial | XEL12 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.

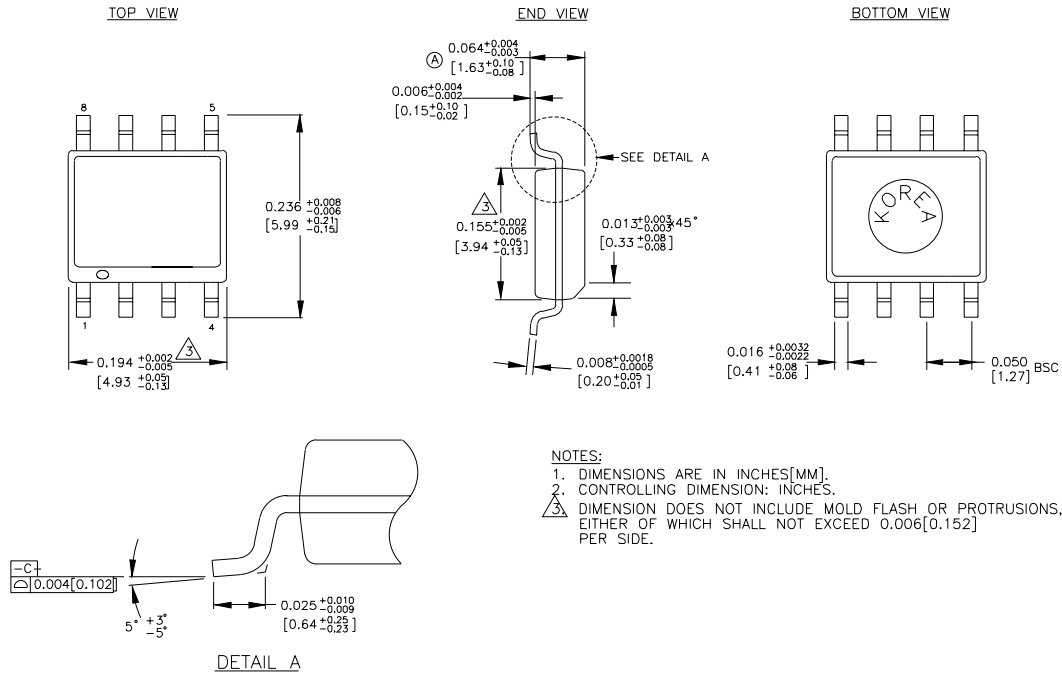
DC ELECTRICAL CHARACTERISTICSV_{EE} = V_{EE} (Min.) to V_{EE} (Max.); V_{CC} = GND

| 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 | 120 | 280 | 500 | 170 | 280 | 450 | 180 | 290 | 450 | 210 | 320 | 480 | ps |
| t _r t _f | Output Rise/Fall Times Q (20% to 80%) | 150 | 350 | 550 | 150 | 350 | 550 | 150 | 350 | 550 | 150 | 350 | 550 | ps |

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



Rev. 03

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