



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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**9-BIT
BUFFER**

**SY10E122
SY100E122**

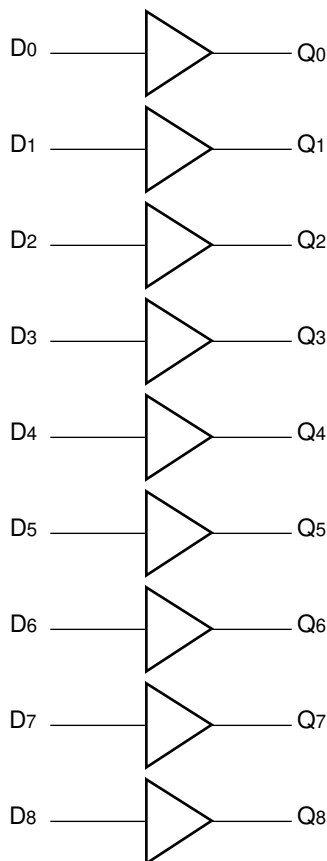
FEATURES

- 500ps max. propagation delay
- Extended 100E VEE range of -4.2V to -5.5V
- Fully compatible with industry standard 10KH, 100K I/O levels
- Internal 75KΩ input pulldown resistors
- Fully compatible with Motorola MC10E/100E122
- Available in 28-pin PLCC package

DESCRIPTION

The SY10/100E122 are 9-bit buffers designed for use in new, high-performance ECL systems. The E122 provides nine non-inverting buffers.

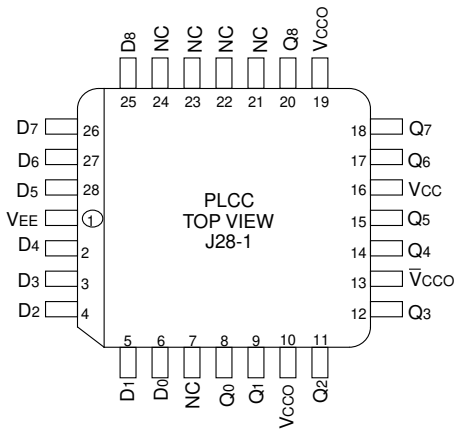
BLOCK DIAGRAM



PIN NAMES

| Pin | Function |
|-------|---------------|
| D0-D8 | Data Inputs |
| Q0-Q8 | Data Outputs |
| VCC0 | Vcc to Output |

PACKAGE/ORDERING INFORMATION



28-Pin PLCC (J28-1)

Ordering Information⁽¹⁾

| Part Number | Package Type | Operating Range | Package Marking | Lead Finish |
|---------------------------------|--------------|-----------------|---------------------------------------------|-------------|
| SY10E122JI | J28-1 | Industrial | SY10E122JI | Sn-Pb |
| SY10E122JITR ⁽²⁾ | J28-1 | Industrial | SY10E122JI | Sn-Pb |
| SY100E122JI | J28-1 | Industrial | SY100E122JI | Sn-Pb |
| SY100E122JITR ⁽²⁾ | J28-1 | Industrial | SY100E122JI | Sn-Pb |
| SY10E122JC | J28-1 | Commercial | SY10E122JC | Sn-Pb |
| SY10E122JCTR ⁽²⁾ | J28-1 | Commercial | SY10E122JC | Sn-Pb |
| SY100E122JC | J28-1 | Commercial | SY100E122JC | Sn-Pb |
| SY100E122JCTR ⁽²⁾ | J28-1 | Commercial | SY100E122JC | Sn-Pb |
| SY10E122JY ⁽³⁾ | J28-1 | Industrial | SY10E122JY with Pb-Free bar-line indicator | Matte-Sn |
| SY10E122JYTR ^(2, 3) | J28-1 | Industrial | SY10E122JY with Pb-Free bar-line indicator | Matte-Sn |
| SY100E122JY ⁽³⁾ | J28-1 | Industrial | SY100E122JY with Pb-Free bar-line indicator | Matte-Sn |
| SY100E122JYTR ^(2, 3) | J28-1 | Industrial | SY100E122JY with Pb-Free bar-line indicator | Matte-Sn |

Notes:

1. Contact factory for die availability. Dice are guaranteed at $T_A = 25^\circ\text{C}$, DC Electricals only.
2. Tape and Reel.
3. Pb-Free package is recommended for new designs.

DC ELECTRICAL CHARACTERISTICS

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

| Symbol | Parameter | TA = -40°C | | | TA = 0°C | | | TA = +25°C | | | TA = +85°C | | | Unit |
|-----------------|----------------------|------------|------|------|----------|------|------|------------|------|------|------------|------|------|------|
| | | Min. | Typ. | Max. | Min. | Typ. | Max. | Min. | Typ. | Max. | Min. | Typ. | Max. | |
| I _{IH} | Input HIGH Current | — | — | 200 | — | — | 200 | — | — | 200 | — | — | 200 | μA |
| I _{EE} | Power Supply Current | — | — | — | — | — | — | — | — | — | — | — | — | mA |
| | 10E | — | 41 | 49 | — | 41 | 49 | — | 41 | 49 | — | 41 | 49 | |
| | 100E | — | 41 | 49 | — | 41 | 49 | — | 41 | 49 | — | 47 | 57 | |

AC ELECTRICAL CHARACTERISTICS

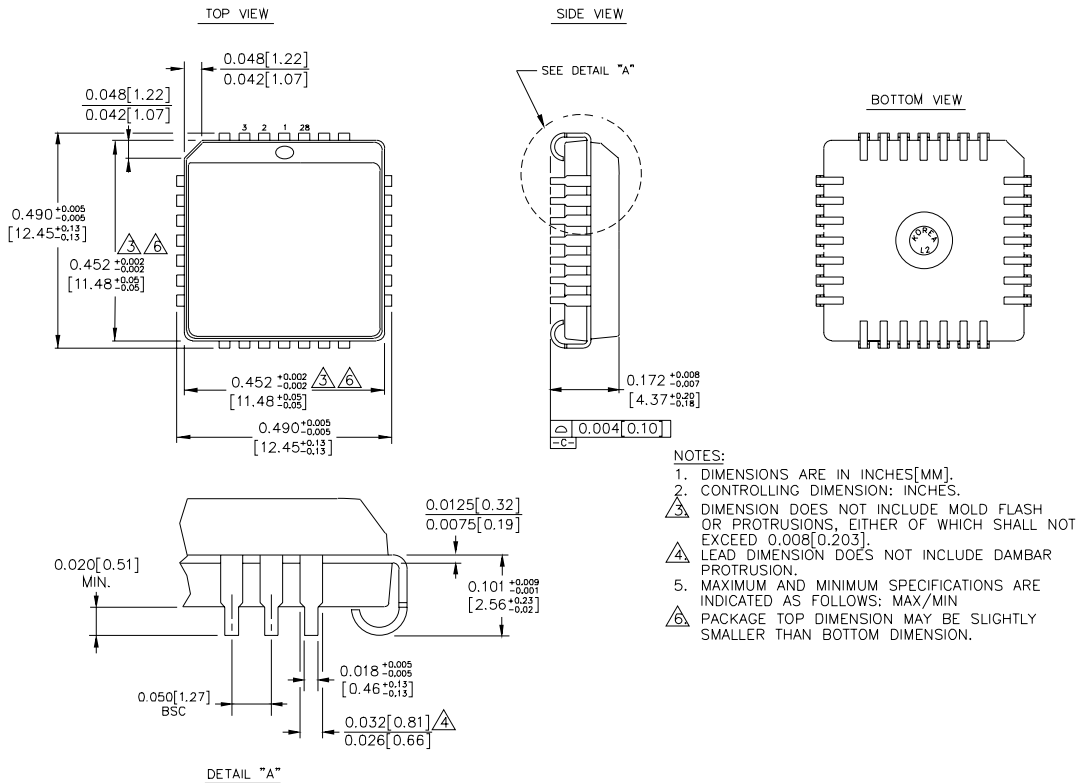
VEE = VEE (Min.) to VEE (Max.); VCC = VCCO = GND

| Symbol | Parameter | TA = -40°C | | | TA = 0°C | | | TA = +25°C | | | TA = +85°C | | | Unit |
|----------------------------------|------------------------------------------|------------|------|------|----------|------|------|------------|------|------|------------|------|------|------|
| | | Min. | Typ. | Max. | Min. | Typ. | Max. | Min. | Typ. | Max. | Min. | Typ. | Max. | |
| t _{PD} | Propagation Delay to D to Q | 150 | 350 | 500 | 150 | 350 | 500 | 150 | 350 | 500 | 150 | 350 | 500 | ps |
| t _{skew} | Within-Device Skew D to Q ⁽¹⁾ | — | 75 | — | — | 75 | — | — | 75 | — | — | 75 | — | ps |
| t _r t _f | Rise/Fall Time 20% to 80% | 300 | 425 | 800 | 300 | 425 | 800 | 300 | 425 | 800 | 300 | 425 | 800 | ps |

Note:

1. Within-device skew is defined as identical transitions on similar paths through a device.

28-PIN PLCC (J28-1)



Rev. 03

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