

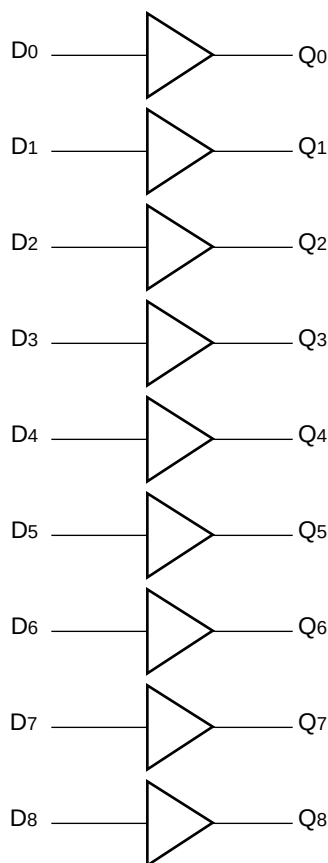
FEATURES

- 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 75K Ω 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.

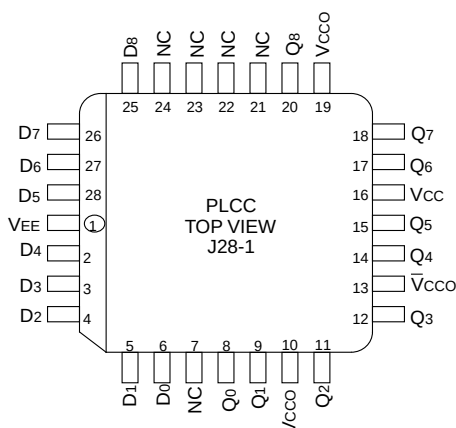
BLOCK DIAGRAM



PIN NAMES

Pin	Function
D0-D8	Data Inputs
Q0-Q8	Data Outputs
Vcco	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 CHARACTERISTICSV_{EE} = V_{EE} (Min.) to V_{EE} (Max.); V_{CC} = V_{CCO} = 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 _{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	

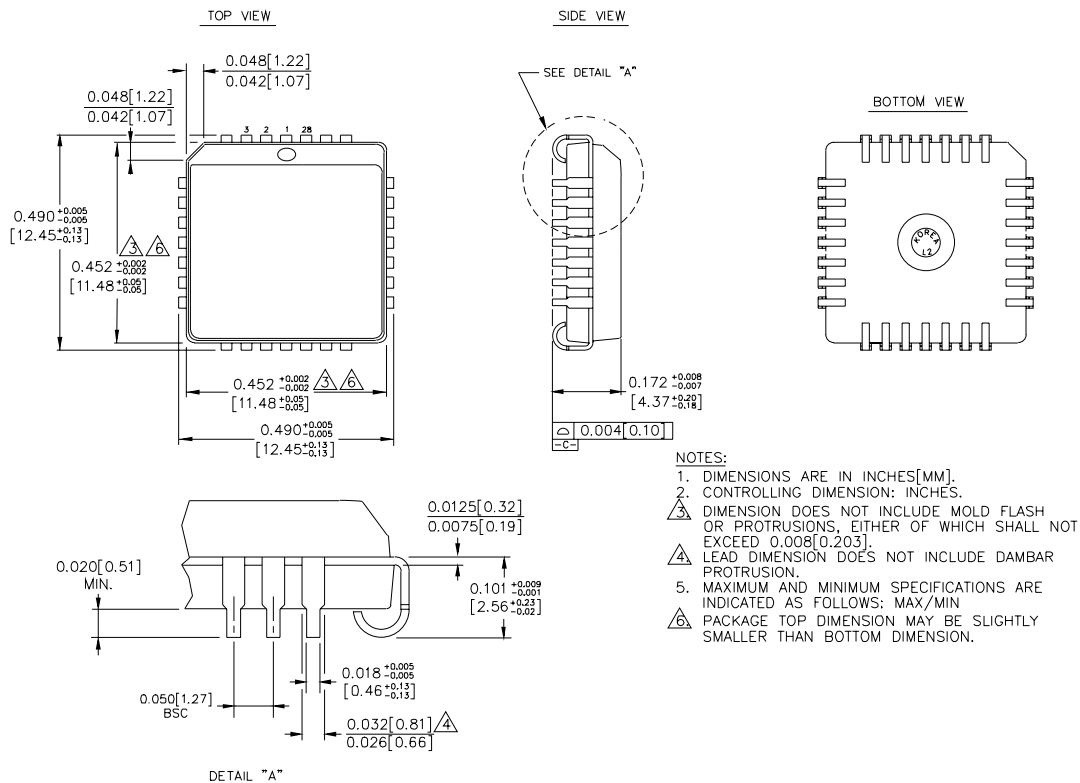
AC ELECTRICAL CHARACTERISTICSV_{EE} = V_{EE} (Min.) to V_{EE} (Max.); V_{CC} = V_{CCO} = GND

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 _{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

MICREL, INC. 2180 FORTUNE DRIVE SAN JOSE, CA 95131 USATEL + 1 (408) 944-0800 FAX + 1 (408) 474-1000 WEB <http://www.micrel.com>

The information furnished by Micrel in this data sheet is believed to be accurate and reliable. However, no responsibility is assumed by Micrel for its use. Micrel reserves the right to change circuitry and specifications at any time without notification to the customer.

Micrel Products are not designed or authorized for use as components in life support appliances, devices or systems where malfunction of a product can reasonably be expected to result in personal injury. Life support devices or systems are devices or systems that (a) are intended for surgical implant into the body or (b) support or sustain life, and whose failure to perform can be reasonably expected to result in a significant injury to the user. A Purchaser's use or sale of Micrel Products for use in life support appliances, devices or systems is at Purchaser's own risk and Purchaser agrees to fully indemnify Micrel for any damages resulting from such use or sale.

© 2006 Micrel, Incorporated.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Micrel:](#)

[SY10E122JY TR](#) [SY100E122JY](#) [SY10E122JY](#)