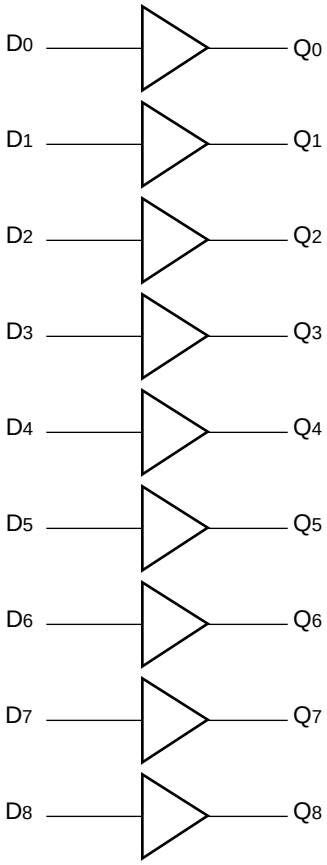
FEATURES

- **500ps max. propagation delay**
- **Extended 100E V_{EE} 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.

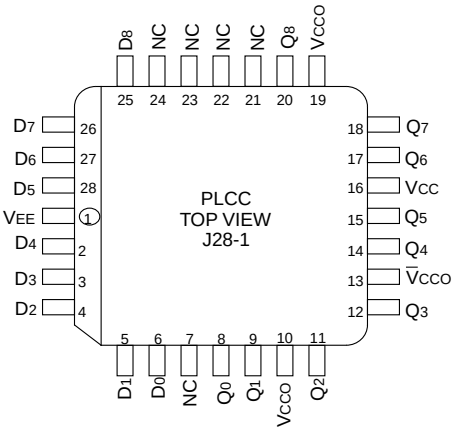
BLOCK DIAGRAM



PIN NAMES

Pin	Function
D_0-D_8	Data Inputs
Q_0-Q_8	Data Outputs
V_{CCO}	V_{CC} 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°C, DC Electricals only.
2. Tape and Reel.
3. Pb-Free package is recommended for new designs.

DC ELECTRICAL CHARACTERISTICS

V_{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 CHARACTERISTICS

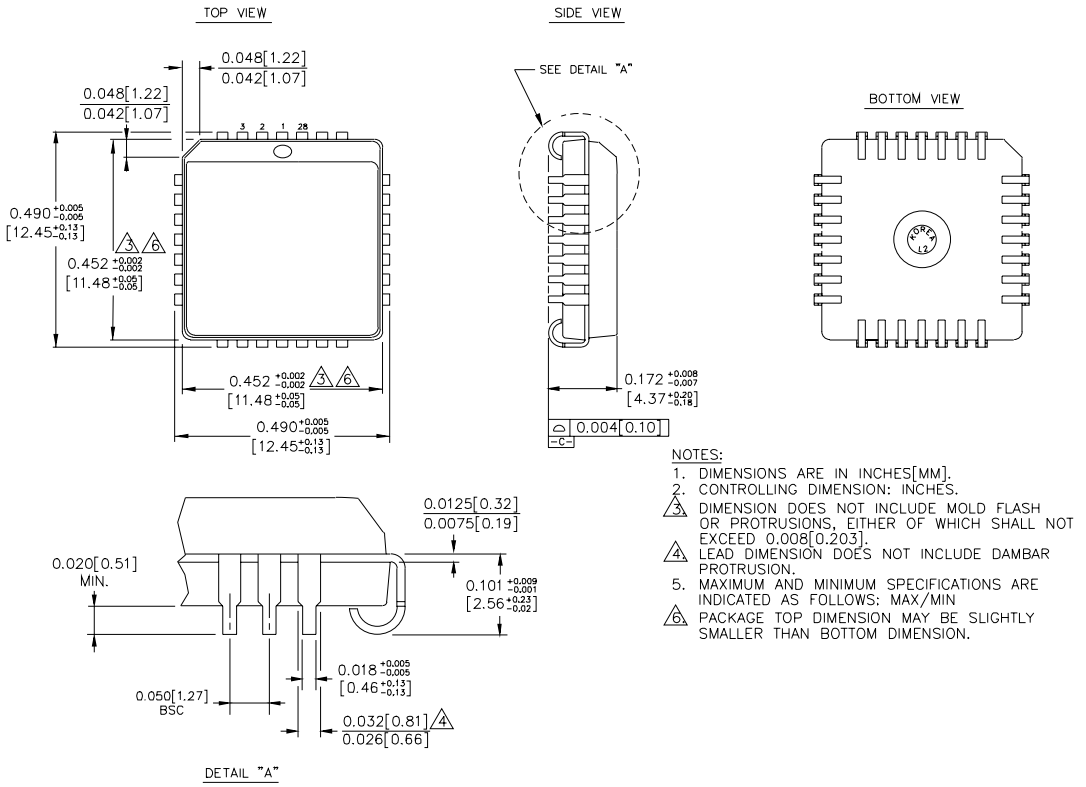
V_{EE} = V_{EE} (Min.) to V_{EE} (Max.); V_{CC} = V_{CCO} = GND

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)



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 0.008[0.203].
4. LEAD DIMENSION DOES NOT INCLUDE DAMBAR PROTRUSION.
5. MAXIMUM AND MINIMUM SPECIFICATIONS ARE INDICATED AS FOLLOWS: MAX/MIN
6. PACKAGE TOP DIMENSION MAY BE SLIGHTLY SMALLER THAN BOTTOM DIMENSION.

Rev. 03

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