



9-BIT BUFFER

SY10E122
SY100E122

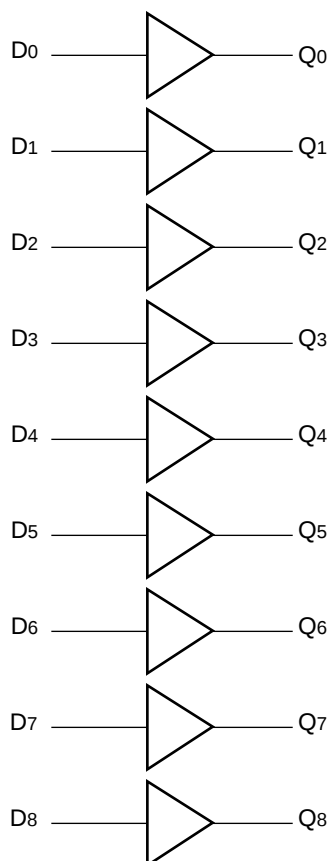
FEATURES

- 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 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.

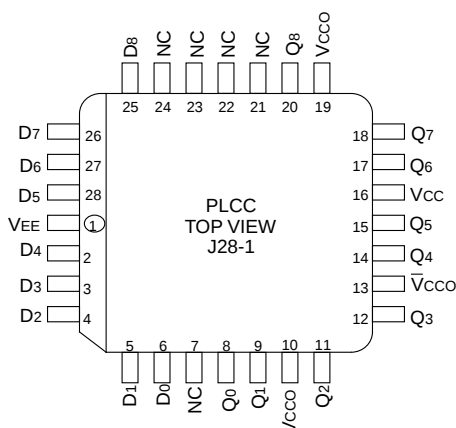
BLOCK DIAGRAM



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	—	41	49	—	41	49	—	41	49	—	41	49	mA
	10E 100E	—	41	49	—	41	49	—	41	49	—	47	57	

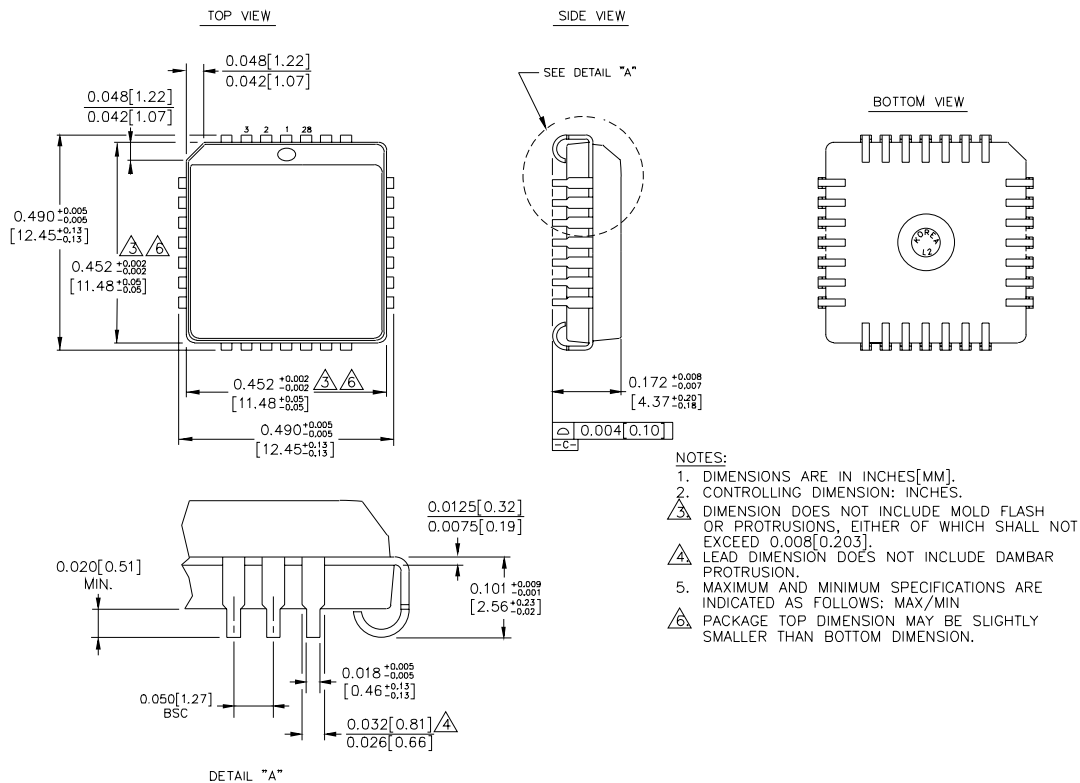
AC ELECTRICAL CHARACTERISTICSV_{EE} = V_{EE} (Min.) to V_{EE} (Max.); V_{CC} = V_{CCO} = GND

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

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