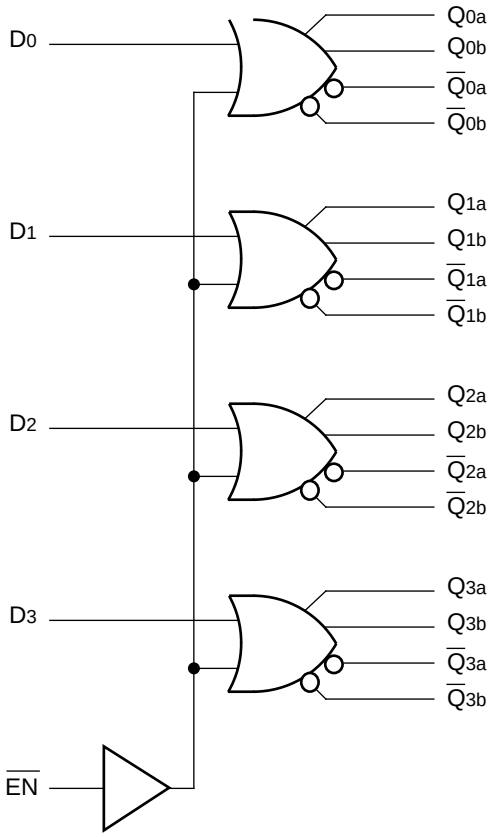
QUAD DRIVER

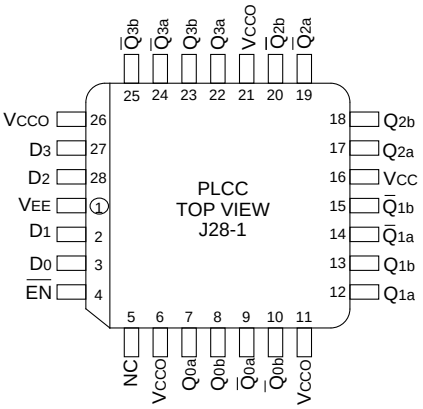
SY10E112
SY100E112

- **600ps max. propagation delay**
- **Extended 100E VEE range of –4.2V to –5.5V**
- **Common enable input**
- **Fully compatible with industry standard 10KH, 100K I/O levels**
- **Internal 75KΩ input pulldown resistors**
- **Fully compatible with Motorola MC10E/100E112**
- **Available in 28-pin PLCC package**

The SY10/100E112 are quad drivers designed for use in new, high-performance ECL systems. The E112 has two pairs of OR/NOR outputs from each gate and a common, buffered enable input. The data input can also be used as an ECL memory address fan-out driver, although the E111 is designed specifically for this purpose, and offers lower skew than the E112. For memory address driver applications where scan capabilities are required, please refer to the SY10/100E212 device.



	Function
D0-D3	Data Inputs
$\overline{EN}$	Enable Input
Qna, Qnb	True Outputs
$\overline{Q}$na, $\overline{Q}$nb	Inverting Outputs
VCCO	VCC to Output



28-Pin PLCC (J28-1)

(1)

Part Number	Package Type	Operating Range	Package Marking	Lead Finish
SY10E112JI	J28-1	Industrial	SY10E112JI	Sn-Pb
SY10E112JITR(2)	J28-1	Industrial	SY10E112JI	Sn-Pb
SY100E112JI	J28-1	Industrial	SY100E112JI	Sn-Pb
SY100E112JITR(2)	J28-1	Industrial	SY100E112JI	Sn-Pb
SY10E112JC	J28-1	Commercial	SY10E112JC	Sn-Pb
SY10E112JCTR(2)	J28-1	Commercial	SY10E112JC	Sn-Pb
SY100E112JC	J28-1	Commercial	SY100E112JC	Sn-Pb
SY100E112JCTR(2)	J28-1	Commercial	SY100E112JC	Sn-Pb
SY10E112JY(3)	J28-1	Industrial	SY10E112JY with Pb-Free bar-line indicator	Matte-Sn
SY10E112JYTR(2, 3)	J28-1	Industrial	SY10E112JY with Pb-Free bar-line indicator	Matte-Sn
SY100E112JY(3)	J28-1	Industrial	SY100E112JY with Pb-Free bar-line indicator	Matte-Sn
SY100E112JYTR(2, 3)	J28-1	Industrial	SY100E112JY with Pb-Free bar-line indic ator	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.

$\overline{\quad}$	n	$\overline{Q}_n$
L	D_n	$\overline{D}_n$
H	H	L

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

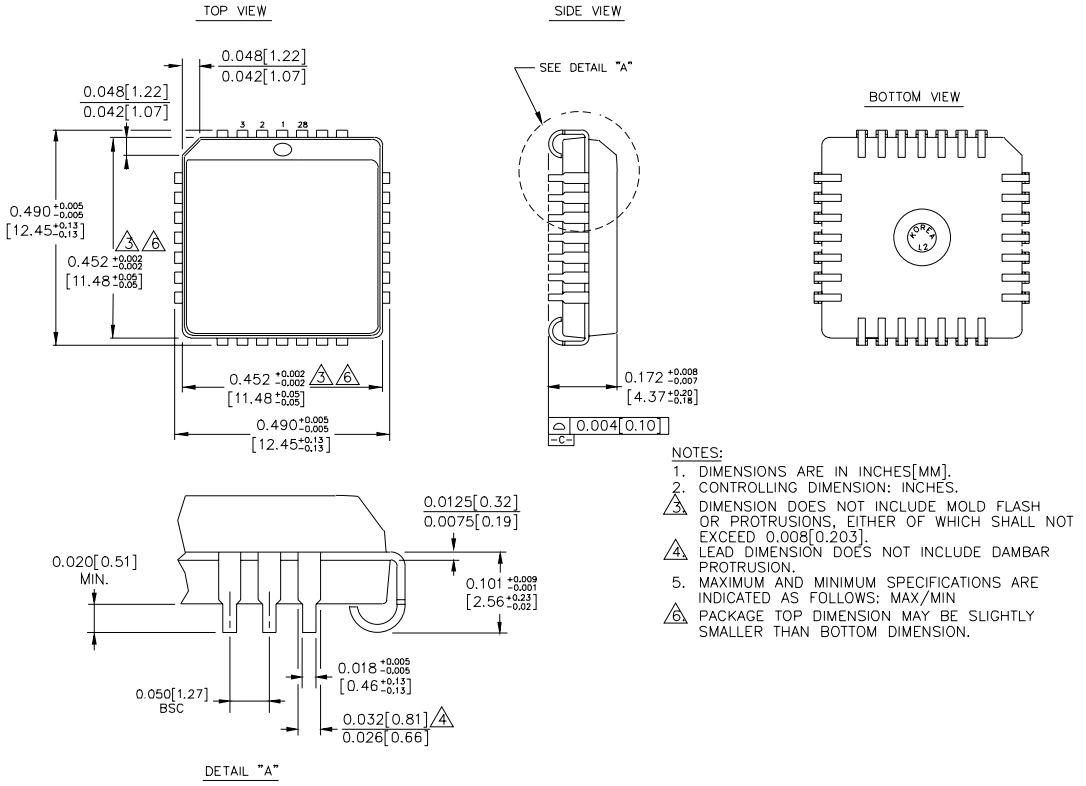
Symbol	Parameter	T_A = –40°C			T_A = 0°C			T_A = +25°C			T_A = +85°C			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
I_{IH}	Input HIGH Current													µA
	$\overline{EN}$	—	—	150	—	—	150	—	—	150	—	—	150	
	D	—	—	200	—	—	200	—	—	200	—	—	200	
I_{EE}	Power Supply Current													mA
	10E	—	47	56	—	47	56	—	47	56	—	47	56	
	100E	—	47	56	—	47	56	—	47	56	—	54	65	

VEE = VEE (Min.) to VEE (Max.); VCC = VCCO = 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 Output													ps
	D	200	400	600	200	400	600	200	400	600	200	400	600	
	$\overline{EN}$	275	450	675	275	450	675	275	450	675	275	450	675	
t_{skew}	Within-Device Skew													ps
	D_n to Q_n, $\overline{Q}_n$[1]	—	80	—	—	80	—	—	80	—	—	80	—	
	Q_{na} to Q_{nb}[2]	—	40	—	—	40	—	—	40	—	—	40	—	
t_r	Rise/Fall Time	275	425	700	275	425	700	275	425	700	275	425	700	ps
t_f	20% to 80%													

Notes:

1. Within-device skew is defined as identical transitions on similar paths through a device.
2. Skew defined between common OR or common NOR outputs of a single gate.



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

MICREL, INC. 2180 FORTUNE DRIVE SAN JOSE, CA 95131 USA

TEL + 1 (408) 944-0800 FAX + 1 (408) 474-1000 WEB http://www.micrel.com

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