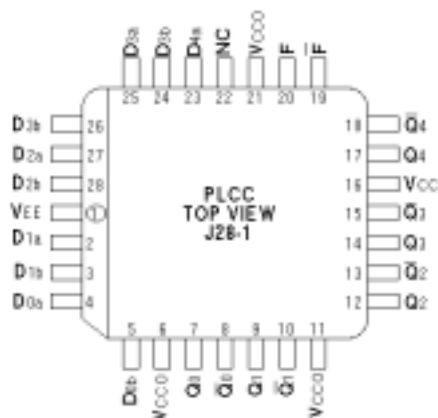


PACKAGE/ORDERING INFORMATION

Ordering Information⁽¹⁾

28-Pin PLCC (J28-1)

Part Number	Package Type	Operating Range	Package Marking	Lead Finish
SY10E104JI	J28-1	Industrial	SY10E104JI	Sn-Pb
SY10E104JITR ⁽²⁾	J28-1	Industrial	SY10E104JI	Sn-Pb
SY100E104JI	J28-1	Industrial	SY100E104JI	Sn-Pb
SY100E104JITR ⁽²⁾	J28-1	Industrial	SY100E104JI	Sn-Pb
SY10E104JC	J28-1	Commercial	SY10E104JC	Sn-Pb
SY10E104JCTR ⁽²⁾	J28-1	Commercial	SY10E104JC	Sn-Pb
SY100E104JC	J28-1	Commercial	SY100E104JC	Sn-Pb
SY100E104JCTR ⁽²⁾	J28-1	Commercial	SY100E104JC	Sn-Pb
SY10E104JY ⁽³⁾	J28-1	Industrial	SY10E104JY with Pb-Free bar-line indicator	Matte-Sn
SY10E104JYTR ^(2, 3)	J28-1	Industrial	SY10E104JY with Pb-Free bar-line indicator	Matte-Sn
SY100E104JY ⁽³⁾	J28-1	Industrial	SY100E104JY with Pb-Free bar-line indicator	Matte-Sn
SY100E104JYTR ^(2, 3)	J28-1	Industrial	SY100E104JY 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.

LOGIC EQUATION

$$F = (D0a \cdot D0b) + (D1a \cdot D1b) + (D2a \cdot D2b) + (D3a \cdot D3b) + (D4a \cdot D4b)$$

DC ELECTRICAL CHARACTERISTICS⁽¹⁾

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

Symbol	Parameter	$T_A = -40^\circ\text{C}$			$T_A = 0^\circ\text{C}$			$T_A = +25^\circ\text{C}$			$T_A = +85^\circ\text{C}$			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	—	38	46	—	38	46	—	38	46	—	38	46	mA
	10E 100E	—	38	46	—	38	46	—	38	46	—	44	53	

Note:

1. Specification for packaged product only.

AC ELECTRICAL CHARACTERISTICS⁽²⁾

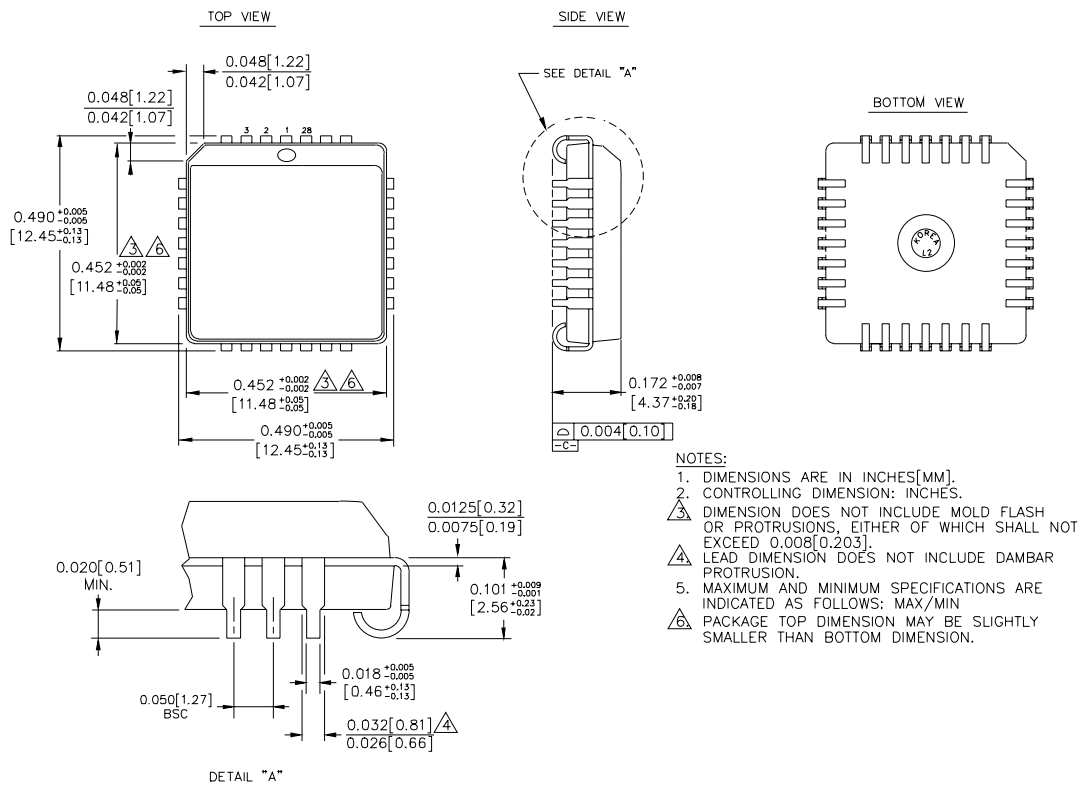
$V_{EE} = V_{EE} (\text{Min.})$ to $V_{EE} (\text{Max.})$; $V_{CC} = V_{CCO} = \text{GND}$

Symbol	Parameter	$T_A = -40^\circ\text{C}$			$T_A = 0^\circ\text{C}$			$T_A = +25^\circ\text{C}$			$T_A = +85^\circ\text{C}$			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
t_{PD}	Propagation Delay to Output	225	385	600	225	385	600	225	385	600	225	385	600	ps
	D to Q D to F	500	725	1000	500	725	1000	500	725	1000	500	725	1000	
t_{skew}	Within-Device Skew, D to Q ⁽¹⁾	—	75	—	—	75	—	—	75	—	—	75	—	ps
t_r t_f	Rise/Fall Time	275	425	700	275	425	700	275	425	700	275	425	700	ps
	20% to 80% Q F	300	475	700	300	475	700	300	475	700	300	475	700	

Notes:

1. Within-device skew is defined as identical transitions on similar paths through a device.
2. Specification for packaged product only.

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.