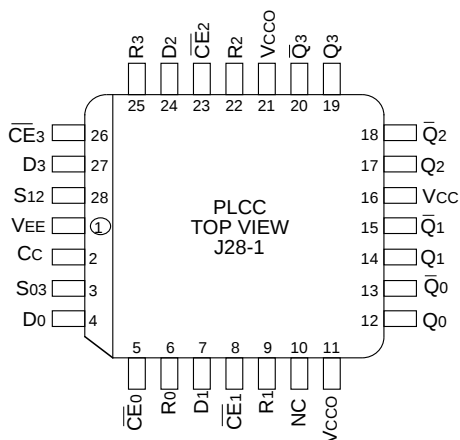


PACKAGE/ORDERING INFORMATION



28-Pin PLCC (J28-1)

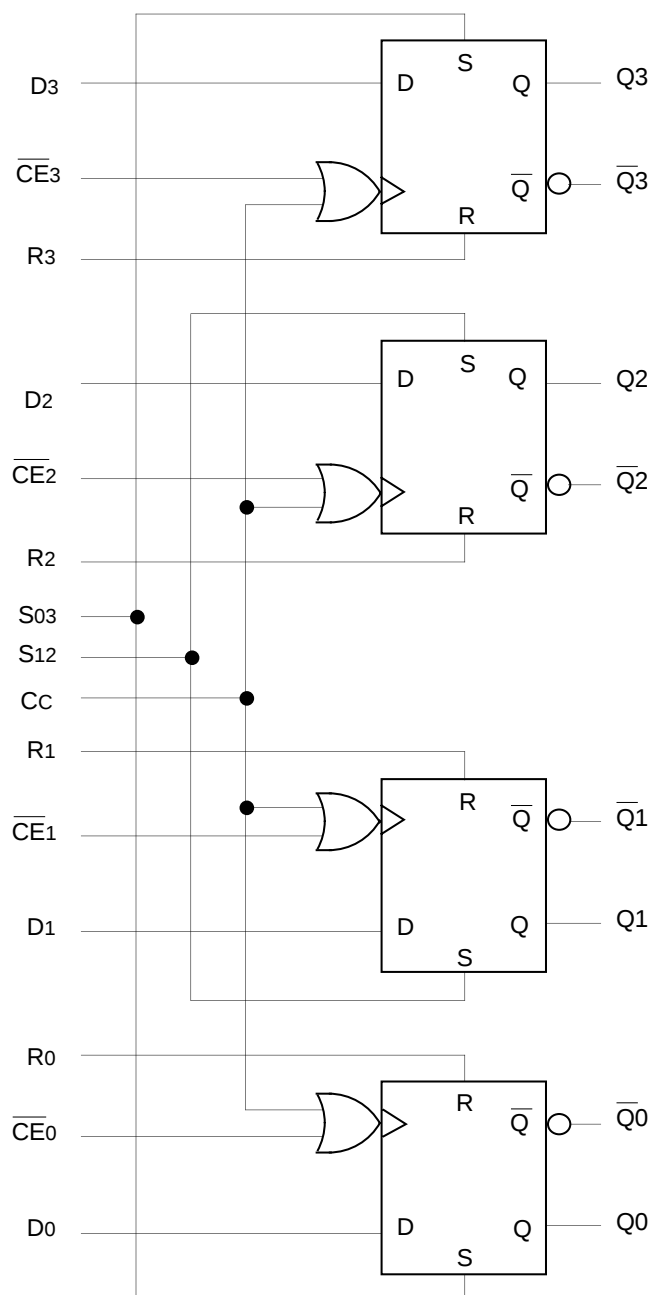
Ordering Information⁽¹⁾

Part Number	Package Type	Operating Range	Package Marking	Lead Finish
SY10E131JI	J28-1	Industrial	SY10E131JI	Sn-Pb
SY10E131JITR ⁽²⁾	J28-1	Industrial	SY10E131JI	Sn-Pb
SY100E131JI	J28-1	Industrial	SY100E131JI	Sn-Pb
SY100E131JITR ⁽²⁾	J28-1	Industrial	SY100E131JI	Sn-Pb
SY10E131JC	J28-1	Commercial	SY10E131JC	Sn-Pb
SY10E131JCTR ⁽²⁾	J28-1	Commercial	SY10E131JC	Sn-Pb
SY100E131JC	J28-1	Commercial	SY100E131JC	Sn-Pb
SY100E131JCTR ⁽²⁾	J28-1	Commercial	SY100E131JC	Sn-Pb
SY10E131JY ⁽³⁾	J28-1	Industrial	SY10E131JY with Pb-Free bar-line indicator	Matte-Sn
SY10E131JYTR ^(2, 3)	J28-1	Industrial	SY10E131JY with Pb-Free bar-line indicator	Matte-Sn
SY100E131JY ⁽³⁾	J28-1	Industrial	SY100E131JY with Pb-Free bar-line indicator	Matte-Sn
SY100E131JYTR ^(2, 3)	J28-1	Industrial	SY100E131JY 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.

TRUTH TABLE



Pin	State	Mode
Cc	L	Individual clocking with $\overline{\text{CE}}_n$
$\overline{\text{CE}}$	L	Common clocking with Cc

DC ELECTRICAL CHARACTERISTICS

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

Symbol	Parameter	TA = -40°C			TA = 0°C			TA = +25°C			TA = +85°C			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
IIH	Input HIGH Current													μ A
	CC	—	—	350	—	—	350	—	—	350	—	—	350	
	S	—	—	450	—	—	450	—	—	450	—	—	450	
	R	—	—	300	—	—	300	—	—	300	—	—	300	
	CE	—	—	300	—	—	300	—	—	300	—	—	300	
	D	—	—	150	—	—	150	—	—	150	—	—	150	
IEE	Power Supply Current													mA
	10E	—	58	70	—	58	70	—	58	70	—	58	70	
	100E	—	58	70	—	58	70	—	58	70	—	67	81	

AC ELECTRICAL CHARACTERISTICS

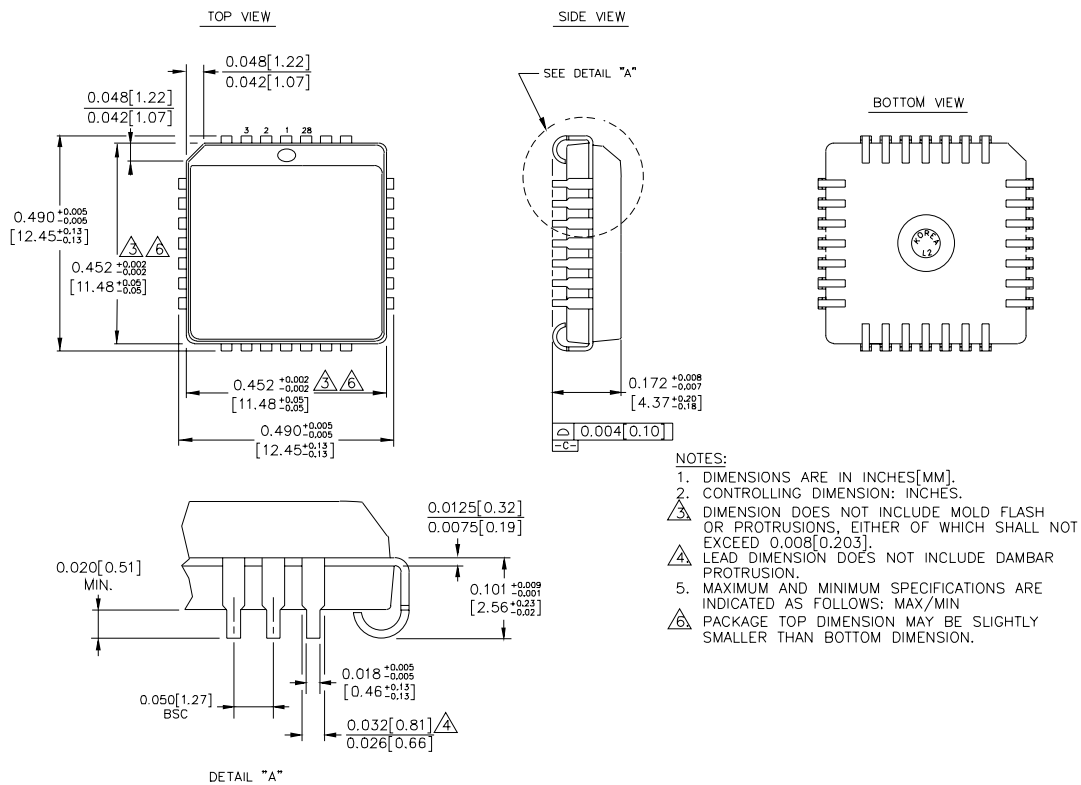
VEE = VEE(Min.) to VEE(Max.); VCC = VCCO = GND

Symbol	Parameter	TA = -40°C			TA = 0°C			TA = +25°C			TA = +85°C			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
fMAX	Max. Toggle Frequency	1100	1400	—	1100	1400	—	1100	1400	—	1100	1400	—	MHz
tPD	Propagation Delay to Output													ps
	CE	310	600	750	360	500	700	360	500	700	360	500	700	
	CC	275	600	725	325	500	675	325	500	675	325	500	675	
	R	300	625	775	350	550	725	350	550	725	350	550	725	
	S	300	550	775	350	550	725	350	550	725	350	550	725	
ts	Set-up Time, D ⁽²⁾	200	20	—	150	20	—	150	20	—	150	20	—	ps
th	Hold Time, D ⁽²⁾	225	-20	—	175	-20	—	175	-20	—	175	-20	—	ps
tRR	Reset Recovery Time	450	150	—	400	150	—	400	150	—	400	150	—	ps
tPW	Minimum Pulse Width													ps
	Clk	400	—	—	400	—	—	400	—	—	400	—	—	
	R, S	400	—	—	400	—	—	400	—	—	400	—	—	
tskew	Within-Device Skew ⁽¹⁾	—	60	—	—	60	—	—	60	—	—	60	—	ps
tr	Rise/Fall Time	275	460	725	300	480	675	300	480	675	300	480	675	ps
tf	20% to 80%													

Notes:

1. Within-device skew is defined as identical transitions on similar paths through a device.
2. Set-up/hold times guaranteed for both CC and CE.

28-PIN PLCC (J28-1)



Rev. 03

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