

PIN NAMES

Pin	Function
D0–D11	Data Inputs
S-IN	Serial Data Input
EN	Enable, active LOW
HOLD	Hold, active LOW
SHIFT	Shift, active HIGH
CLK1, CLK2	Clock Inputs
R	Reset Input
Q, $\bar{Q}$	Direct Output
Y, $\bar{Y}$	Register Output
Vcco	Vcc to Output

TRUTH TABLE

Number of HIGH Inputs	Output Q
Even	LOW
Odd	HIGH

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

Symbol	Parameter	T _A = 0°C			T _A = +25°C			T _A = +85°C			Unit	Condition
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.		
I _{IH}	Input HIGH Current	—	—	200	—	—	200	—	—	200	μA	—
	CLK1, CLK2	—	—	300	—	—	300	—	—	300		
	R All Other Inputs	—	—	150	—	—	150	—	—	150		
I _{EE}	Power Supply Current	—	—	—	—	—	—	—	—	—	mA	—
	10E	—	82	98	—	82	98	—	82	98		
	100E	—	82	98	—	82	98	—	94	113		

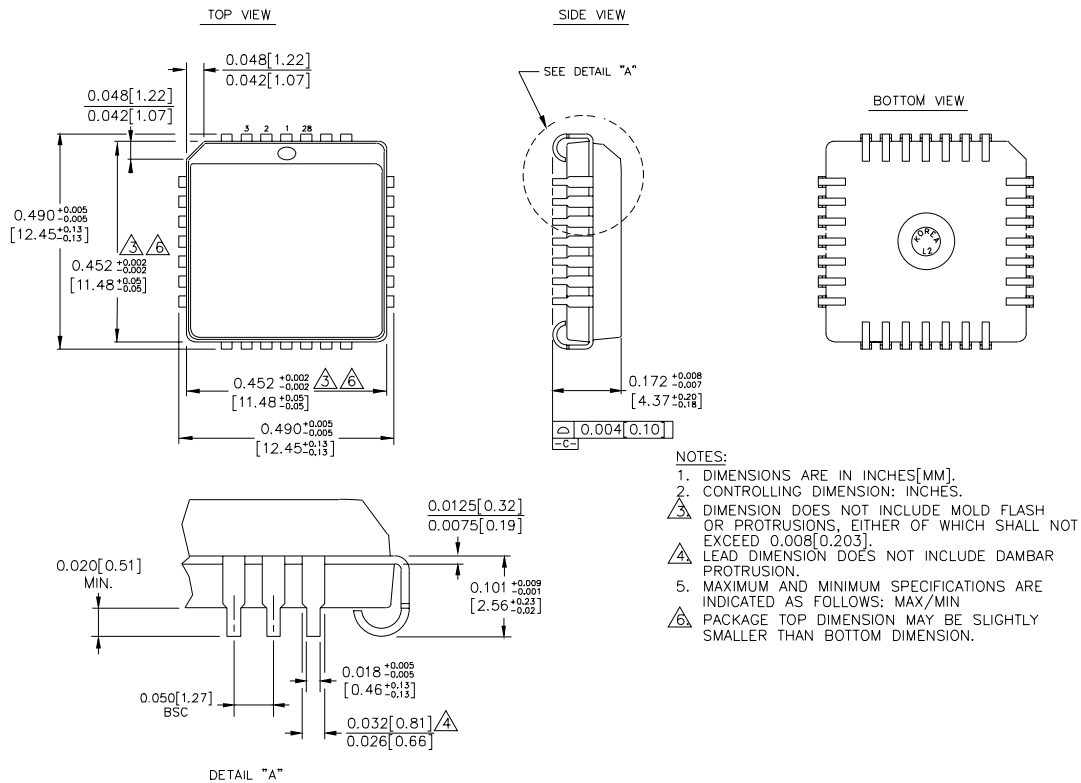
AC ELECTRICAL CHARACTERISTICS

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

Symbol	Parameter	TA = 0°C			TA = +25°C			TA = +85°C			Unit	Condition
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.		
tPLH tPHL	Propagation Delay to Output D to Q EN to Q CLK to Y R to Y	400 300 275 275	650 550 500 500	950 750 700 725	400 300 275 275	650 550 500 500	950 750 700 725	400 300 275 275	650 550 500 500	950 750 700 725	ps	—
ts	Set-up Time D HOLD S-IN SHIFT	1200 600 350 500	900 300 150 250	— — — —	1200 600 350 500	900 300 150 250	— — — —	1200 600 350 500	900 300 150 250	— — — —	ps	—
tH	Hold Time D HOLD S-IN SHIFT	–400 100 300 200	–900 –300 –150 –250	— — — —	–400 100 300 200	–900 –300 –150 –250	— — — —	–400 100 300 200	–900 –300 –150 –250	— — — —	ps	—
tr tf	Rise/Fall Time 20% to 80%	300	450	650	300	450	650	300	450	650	ps	—

PRODUCT ORDERING CODE

Ordering Code	Package Type	Operating Range
SY10E160JC	J28-1	Commercial
SY10E160JCTR	J28-1	Commercial
SY100E160JC	J28-1	Commercial
SY100E160JCTR	J28-1	Commercial

28 LEAD PLCC (J28-1)

Rev. 03

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