

PIN NAMES

Pin	Function
Ia, Ib, I _{na} , I _{nb}	Data Inputs (n = 1...7)
Z _a – Z _b	Parity Odd Outputs
\bar{C}	Compare Output
VEES	VEE Substrate
VCCA	Vcco for ECL Outputs

TRUTH TABLE⁽¹⁾

Sum of High Inputs	Output Z
Even	HIGH
Odd	LOW

NOTE:

1. Comparator Function:

$$\bar{C} = (I_{0a} \oplus I_{1a}) + (I_{2a} \oplus I_{3a}) + (I_{4a} \oplus I_{5a}) + (I_{6a} \oplus I_{7a}) + (I_{0b} \oplus I_{1b}) + (I_{2b} \oplus I_{3b}) + (I_{4b} \oplus I_{5b}) + (I_{6b} \oplus I_{7b})$$

DC ELECTRICAL CHARACTERISTICS

VEE = –4.2V to –5.5V unless otherwise specified; VCC = VCCA = GND

Symbol	Parameter	Min.	Typ.	Max.	Unit	Condition
I _{IH}	Input HIGH Current I _a , I _b I _{na} , I _{nb}	— —	— —	300 200	μA	V _{IN} = V _{IH} (Max.)
I _{EE}	Power Supply Current	–70	–45	–30	mA	Inputs Open

AC ELECTRICAL CHARACTERISTICS

CERPACK

VEE = –4.2V to –5.5V unless otherwise specified; VCC = VCCA = GND

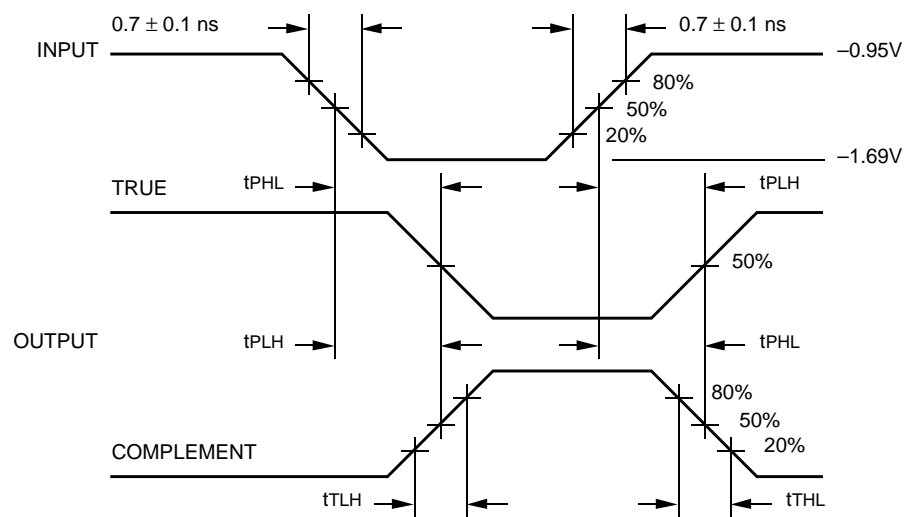
Symbol	Parameter	TA = 0°C		TA = +25°C		TA = +85°C		Unit	Condition
		Min.	Max.	Min.	Max.	Min.	Max.		
t _{PLH} t _{PHL}	Propagation Delay I _{na} , I _{nb} to Z _a , Z _b	500	2300	500	2300	500	2300	ps	
t _{PLH} t _{PHL}	Propagation Delay I _{na} , I _{nb} to \bar{C}	500	1800	500	1800	500	1800	ps	
t _{PLH} t _{PHL}	Propagation Delay I _a , I _b to Z _a , Z _b	300	1000	300	1000	300	1000	ps	
t _{TLH} t _{THL}	Transition Time 20% to 80%, 80% to 20%	300	900	300	900	300	900	ps	

PLCC

VEE = –4.2V to –5.5V unless otherwise specified; VCC = VCCA = GND

Symbol	Parameter	TA = 0°C		TA = +25°C		TA = +85°C		Unit	Condition
		Min.	Max.	Min.	Max.	Min.	Max.		
t _{PLH} t _{PHL}	Propagation Delay I _{na} , I _{nb} to Z _a , Z _b	500	2200	500	2200	500	2200	ps	
t _{PLH} t _{PHL}	Propagation Delay I _{na} , I _{nb} to \bar{C}	500	1700	500	1700	500	1700	ps	
t _{PLH} t _{PHL}	Propagation Delay I _a , I _b to Z _a , Z _b	300	900	300	900	300	900	ps	
t _{TLH} t _{THL}	Transition Time 20% to 80%, 80% to 20%	300	900	300	900	300	900	ps	

TIMING DIAGRAM



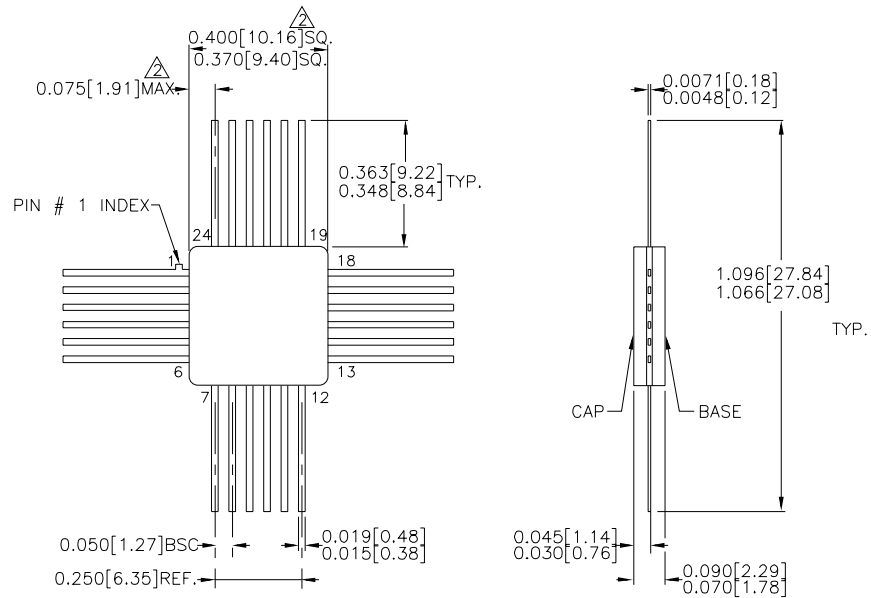
Propagation Delay and Transition Times

NOTE:
 $V_{EE} = -4.2V$ to $-5.5V$ unless otherwise specified; $V_{CC} = V_{CCA} = GND$

PRODUCT ORDERING CODE

Ordering Code	Package Type	Operating Range
SY100S360FC	F24-1	Commercial
SY100S360JC	J28-1	Commercial
SY100S360JCTR	J28-1	Commercial

24 LEAD CERPACK (F24-1)

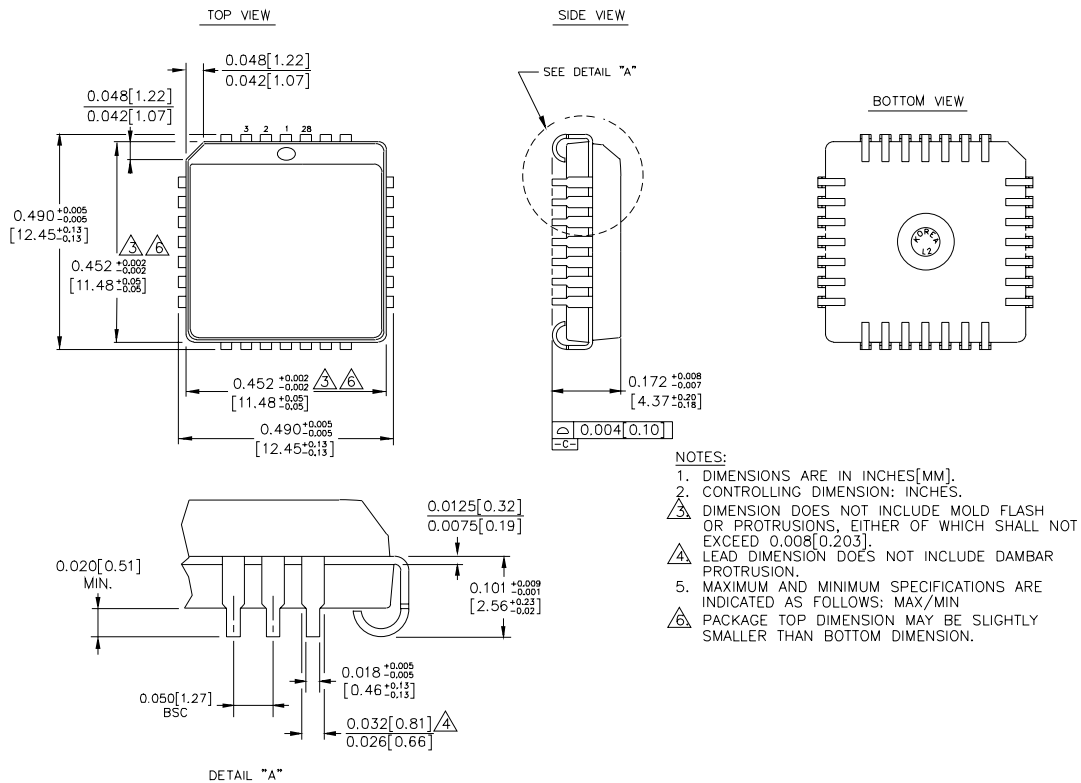


NOTES:

1. DIMENSIONS ARE IN INCHES[MM].
- △ THIS DIMENSION INCLUDES GLASS PROTRUSION AND CAP TO BASE ALIGNMENT TOLERANCES.
3. DIMENSIONS SHOWN ARE MAX/MIN, WHERE NOTED.

Rev. 03

28 LEAD PLCC (J28-1)



Rev. 03

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