14 Pin DIP 5 Tap TTL Compatible High Speed Active Delay Lines

EP87XX & EP87XX-RC

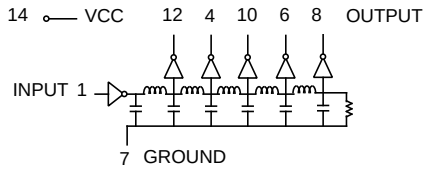
Add “-RC” after part number for RoHS Compliant

PCA Part Number	Tap Delays (†±5% or ± 2nS)	Total Delay (†±5% or ± 2nS)	PCA Part Number	Tap Delays (†±5% or ± 2nS)	Total Delay (†±5% or ± 2nS)
EP8700(-RC)	5, 10, 15, 20	25	EP8708(-RC)	80, 160, 240, 320	400
EP8713(-RC)	6, 12, 18, 24	30	EP8718(-RC)	84, 168, 252, 336	420
EP8714(-RC)	7, 14, 21, 28	35	EP8722(-RC)	88, 176, 264, 352	440
EP8715(-RC)	8, 16, 24, 32	40	EP8709(-RC)	90, 180, 270, 360	450
EP8716(-RC)	9, 18, 27, 36	45	EP8723(-RC)	94, 188, 282, 376	470
EP8701(-RC)	10, 20, 30, 40	50	EP8710(-RC)	100, 200, 300, 400	500
EP8711(-RC)	12, 24, 36, 48	60	EP8730(-RC)	110, 220, 330, 440	550
EP8717(-RC)	15, 30, 45, 60	75	EP8724(-RC)	120, 240, 360, 480	600
EP8702(-RC)	20, 40, 60, 80	100	EP8731(-RC)	130, 260, 390, 520	650
EP8719(-RC)	25, 50, 75, 100	125	EP8725(-RC)	140, 280, 420, 560	700
EP8703(-RC)	30, 60, 90, 120	150	EP8729(-RC)	150, 300, 450, 600	750
EP8720(-RC)	35, 70, 105, 140	175	EP8726(-RC)	160, 320, 480, 640	800
EP8704(-RC)	40, 80, 120, 160	200	EP8732(-RC)	170, 340, 510, 680	850
EP8721(-RC)	45, 90, 135, 180	225	EP8727(-RC)	180, 360, 540, 720	900
EP8705(-RC)	50, 100, 150, 200	250	EP8733(-RC)	190, 380, 570, 760	950
EP8706(-RC)	60, 120, 180, 240	300	EP8728(-RC)	200, 400, 600, 800	1000
EP8707(-RC)	70, 140, 210, 280	350			

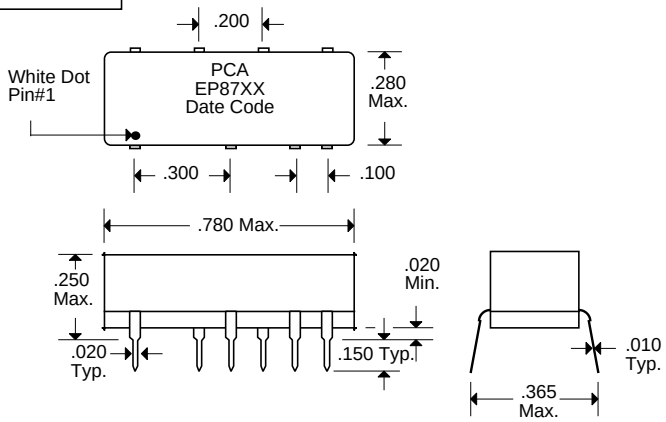
†Whichever is greater. Delay times referenced from input to leading and trailing edges at 25°C, 5.0V, with no load.

DC Electrical Characteristics Parameter		Test Conditions	Min.	Max.	Unit
V_{OH}	High-Level Output Voltage	V_{CC} = min. V_{IL} = max. I_{OH} = max	2.7		V
V_{OL}	Low-Level Output Voltage	V_{CC} = min. V_{IH} = min. I_{OL} = max		0.5	V
V_{IK}	Input Clamp Voltage	V_{CC} = min. I_I = II_K		-1.2	V
I_{IH}	High-Level Input Current	V_{CC} = max. V_{IN} = 2.7V		50	µA
		V_{CC} = max. V_{IN} = 5.25V		1.0	mA
I_{IL}	Low-Level Input Current	V_{CC} = max. V_{IN} = 0.5V		-2	mA
I_{OS}	Short Circuit Output Current	V_{CC} = max. V_{OUT} = 0. (One output at a time)	-40	-100	mA
I_{CCH}	High-Level Supply Current	V_{CC} = max. V_{IN} = OPEN		75	mA
I_{CCL}	Low-Level Supply Current	V_{CC} = max. V_{IN} = 0		75	mA
T_{RO}	Output Rise Time	Td ≤ 500 nS (0.75 to 2.4 Volts)		4	nS
		Td > 500 nS		5	nS
N_H	Fanout High-Level Output	V_{CC} = max. V_{OH} = 2.7V		20 TTL Load	
N_L	Fanout Low-Level Output	V_{CC} = max. V_{OL} = 0.5V		10 TTL Load	

Schematic



Package



Recommended Operating Conditions		Min.	Max.	Unit
V_{CC}	Supply Voltage	4.75	5.25	V
V_{IH}	High-Level Input Voltage	2.0		V
V_{IL}	Low-Level Input Voltage		0.8	V
I_{IK}	Input Clamp Current		-18	mA
I_{OH}	High-Level Output Current		-1.0	mA
I_{OL}	Low-Level Output Current		20	mA
P_W*	Pulse Width of Total Delay	40		%
d*	Duty Cycle		40	%
T_A	Operating Free-Air Temperature	-55	+125	°C

**These two values are inter-dependent.*

Input Pulse Test Conditions @ 25° C			Unit
E_{IN}	Pulse Input Voltage	3.2	Volts
P_W	Pulse Width % of Total Delay	110	%
T_{RI}	Pulse Rise Time (0.75 - 2.4 Volts)	2.0	nS
P_{RR}	Pulse Repetition Rate @ Td ≤ 200 nS	1.0	MHz
	Pulse Repetition Rate @ Td > 200 nS	100	KHz
V_{CC}	Supply Voltage	5.0	Volts

Notes :	EP87XX	EP87XX-RC
1. Assembly Process (Leadframe)	SnPb	Sn
(Solder Composition) (Assembly Solder)	SnPb	SnPb (RoHS exemption 7a)
2. Peak Solder Rating (per IPC/JESD22-B106-B)	260°C 10 (+2/-0) seconds	260°C 10 (+2/-0) seconds
4. Weight	1.3 grams	1.3 grams
5. Packaging Information (Tube)	27 pieces/tube	27 pieces/tube

Unless Otherwise Specified Dimensions are in Inches /mm ± .010 /.25

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CS87XX Rev. B 11/14/05 RR

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