

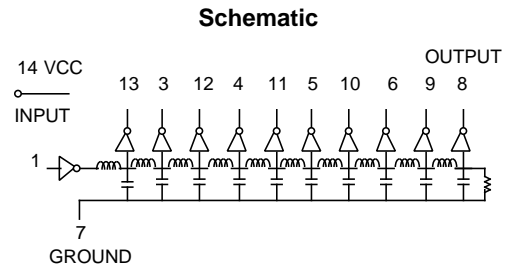
# 14 Pin DIP 10 Tap TTL Compatible Active Delay Lines EP83XX & EP83XX-RC

Add "-RC" after part number for RoHS Compliant

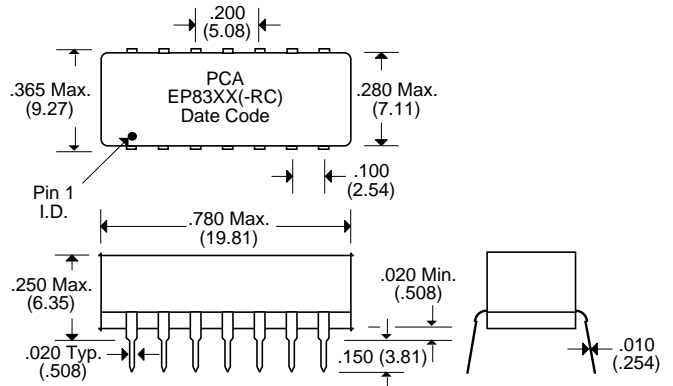
PCA Part Number	Tap Delays ( $\pm 5\%$ or $\pm 2\text{nS}$ )	Total Delay ( $\pm 5\%$ or $\pm 2\text{nS}$ )	PCA Part Number	Tap Delays ( $\pm 5\%$ or $\pm 2\text{nS}$ )	Total Delay ( $\pm 5\%$ or $\pm 2\text{nS}$ )
EP8301(-RC)	5	50	EP8322(-RC)	44	440
EP8311(-RC)	6	60	EP8309(-RC)	45	450
EP8317(-RC)	7.5	75	EP8323(-RC)	47	470
EP8302(-RC)	10	100	EP8310(-RC)	50	500
EP8319(-RC)	12.5	125	EP8330(-RC)	55	550
EP8303(-RC)	15	150	EP8324(-RC)	60	600
EP8320(-RC)	17.5	175	EP8331(-RC)	65	650
EP8304(-RC)	20	200	EP8325(-RC)	70	700
EP8321(-RC)	22.5	225	EP8329(-RC)	75	750
EP8305(-RC)	25	250	EP8326(-RC)	80	800
EP8306(-RC)	30	300	EP8332(-RC)	85	850
EP8307(-RC)	35	350	EP8327(-RC)	90	900
EP8308(-RC)	40	400	EP8333(-RC)	95	950
EP8318(-RC)	42	420	EP8328(-RC)	100	1000

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

DC Electrical Characteristics Parameter	Test Conditions	Min.	Max.	Unit
V <sub>OH</sub>	High-Level Output Voltage	V <sub>CC</sub> = min. V <sub>IL</sub> = max. I <sub>OH</sub> = max	2.7	V
V <sub>OL</sub>	Low-Level Output Voltage	V <sub>CC</sub> = min. V <sub>IH</sub> = min. I <sub>OL</sub> = max	0.5	V
V <sub>IK</sub>	Input Clamp Voltage	V <sub>CC</sub> = min. I <sub>I</sub> = I <sub>IK</sub>	-1.2	V
I <sub>IH</sub>	High-Level Input Current	V <sub>CC</sub> = max. V <sub>IN</sub> = 2.7V	50	μA
		V <sub>CC</sub> = max. V <sub>IN</sub> = 5.25V	1.0	mA
I <sub>IL</sub>	Low-Level Input Current	V <sub>CC</sub> = max. V <sub>IN</sub> = 0.5V	-2	mA
I <sub>OS</sub>	Short Circuit Output Current	V <sub>CC</sub> = max. V <sub>OUT</sub> = 0. (One output at a time)	-40	mA
I <sub>CCH</sub>	High-Level Supply Current	V <sub>CC</sub> = max. V <sub>IN</sub> = OPEN	150	mA
I <sub>CCL</sub>	Low-Level Supply Current	V <sub>CC</sub> = max. V <sub>IN</sub> = 0	150	mA
T <sub>RO</sub>	Output Rise Time	T <sub>d</sub> 500 nS (0.75 to 2.4 Volts) T <sub>d</sub> > 500 nS	4	nS
			5	nS
N <sub>H</sub>	Fanout High-Level Output	V <sub>CC</sub> = max. V <sub>OH</sub> = 2.7V	20	TTL Load
N <sub>L</sub>	Fanout Low-Level Output	V <sub>CC</sub> = max. V <sub>OL</sub> = 0.5V	10	TTL Load



### Package



Recommended Operating Conditions	Min.	Max.	Unit	
V <sub>CC</sub>	Supply Voltage	4.75	5.25	V
V <sub>IH</sub>	High-Level Input Voltage	2.0		V
V <sub>IL</sub>	Low-Level Input Voltage		0.8	V
I <sub>IK</sub>	Input Clamp Current		-18	mA
I <sub>OH</sub>	High-Level Output Current		-1.0	mA
I <sub>OL</sub>	Low-Level Output Current		20	mA
P <sub>W</sub> *	Pulse Width of Total Delay	40		%
d*	Duty Cycle		40	%
T <sub>A</sub>	Operating Free-Air Temperature	0	+70	°C

\*These two values are inter-dependent.

Input Pulse Test Conditions @ 25° C	Unit		
E <sub>IN</sub>	Pulse Input Voltage	3.2	Volts
P <sub>W</sub>	Pulse Width % of Total Delay	110	%
T <sub>RI</sub>	Pulse Rise Time (0.75 - 2.4 Volts)	2.0	nS
P <sub>RR</sub>	Pulse Repetition Rate @ T <sub>d</sub> 200 nS	1.0	MHz
	Pulse Repetition Rate @ T <sub>d</sub> > 200 nS	100	KHz
V <sub>CC</sub>	Supply Voltage	5.0	Volts

Notes :	EP83XX	EP83XX-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	260°C
	10 (+2/-0) seconds	10 (+2/-0) seconds
3. Moisture Sensitive Levels (MSL) (per IPC/JESD22-B106-B)	3 (168 hours, 30°C/60%RH)	4 (72 hours, 30°C/60%RH)
4. Weight	2.0 grams	2.0 grams
5. Packaging Information (Tube)	27 pieces/tube	27 pieces/tube

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