

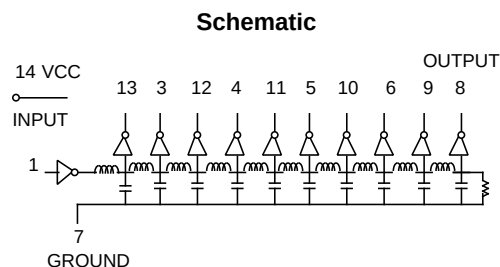
14 Pin DIP 10 Tap TTL Compatible Active Delay Lines EP83XX & EP83XX-RC

Add "-RC" after part number for RoHS Compliant

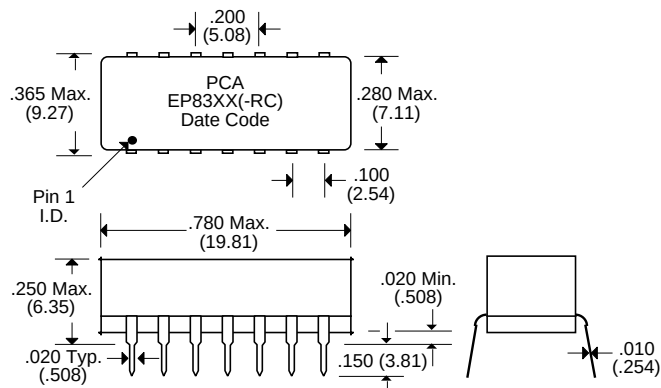
PCA Part Number	Tap Delays ($\pm 5\%$ or $\pm 2\text{nS}$)	Total Delay ($\pm 5\%$ or $\pm 2\text{nS}$)	PCA Part Number	Tap Delays ($\pm 5\%$ or $\pm 2\text{nS}$)	Total Delay ($\pm 5\%$ or $\pm 2\text{nS}$)
EP8301(-RC)	5	50	EP8322(-RC)	44	440
EP8311(-RC)	6	60	EP8309(-RC)	45	450
EP8317(-RC)	7.5	75	EP8323(-RC)	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		Test Conditions	Min.	Max.	Unit
V_{OH}	High-Level Output Voltage	$V_{CC} = \text{min. } V_{IL} = \text{max. } I_{OH} = \text{max}$	2.7		V
V_{OL}	Low-Level Output Voltage	$V_{CC} = \text{min. } V_{IH} = \text{min. } I_{OL} = \text{max}$		0.5	V
V_{IK}	Input Clamp Voltage	$V_{CC} = \text{min. } I_I = I_{IK}$		-1.2	V
I_{IH}	High-Level Input Current	$V_{CC} = \text{max. } V_{IN} = 2.7\text{V}$		50	μA
		$V_{CC} = \text{max. } V_{IN} = 5.25\text{V}$		1.0	mA
I_{IL}	Low-Level Input Current	$V_{CC} = \text{max. } V_{IN} = 0.5\text{V}$		-2	mA
I_{OS}	Short Circuit Output Current	$V_{CC} = \text{max. } V_{OUT} = 0.$ (One output at a time)	-40	-100	mA
I_{CCH}	High-Level Supply Current	$V_{CC} = \text{max. } V_{IN} = \text{OPEN}$		150	mA
I_{CCL}	Low-Level Supply Current	$V_{CC} = \text{max. } V_{IN} = 0$		150	mA
T_{RO}	Output Rise Time	$T_d \leq 500 \text{ nS}$ (0.75 to 2.4 Volts)		4	nS
		$T_d > 500 \text{ nS}$		5	nS
N_H	Fanout High-Level Output	$V_{CC} = \text{max. } V_{OH} = 2.7\text{V}$		20 TTL Load	
N_L	Fanout Low-Level Output	$V_{CC} = \text{max. } V_{OL} = 0.5\text{V}$		10 TTL Load	



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	0	+70	°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 @ $T_d \leq 200 \text{ nS}$	1.0	MHz
	Pulse Repetition Rate @ $T_d > 200 \text{ nS}$	100	KHz
V_{CC}	Supply Voltage	5.0	Volts

Notes :	EP83XX	EP83XX-RC
1. Assembly Process (Leadframe)	SnPb	Sn
(Solder Composition)	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, $\leq 30^\circ\text{C}/60\%\text{RH}$)	4 (72 hours, $\leq 30^\circ\text{C}/60\%\text{RH}$)
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 $\pm .010 / .25$