

28 Pin SMD 5 Tap TTL Compatible Active Delay Lines

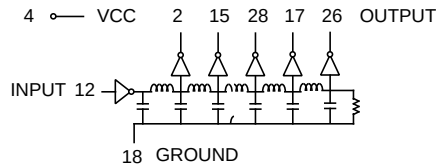
EP9100 to EP9129 & EP9100-RC to EP9129-RC

Add "-RC" after part number for RoHS Compliant

J-Lead Part Number	Gull-Wing Part Number	Tap Delays ($\pm 5\%$ or $\pm 2\text{nS}$)				Total Delay ($\pm 5\%$ or $\pm 2\text{nS}$)	J-Lead Part Number	Gull-Wing Part Number	Tap Delays ($\pm 5\%$ or $\pm 2\text{nS}$)				Total Delay ($\pm 5\%$ or $\pm 2\text{nS}$)
EP9100(-RC)	EP9115(-RC)	5	10	15	20	25	EP9108(-RC)	EP9123(-RC)	20	40	60	80	100
EP9101(-RC)	EP9116(-RC)	6	12	18	24	30	EP9109(-RC)	EP9124(-RC)	25	50	75	100	125
EP9102(-RC)	EP9117(-RC)	7	14	21	28	35	EP9110(-RC)	EP9125(-RC)	30	60	90	120	150
EP9103(-RC)	EP9118(-RC)	8	16	24	32	40	EP9111(-RC)	EP9126(-RC)	35	70	105	140	175
EP9104(-RC)	EP9119(-RC)	9	18	27	36	45	EP9112(-RC)	EP9127(-RC)	40	80	120	160	200
EP9105(-RC)	EP9120(-RC)	10	20	30	40	50	EP9113(-RC)	EP9128(-RC)	45	90	135	180	225
EP9106(-RC)	EP9121(-RC)	12	24	36	48	60	EP9114(-RC)	EP9129(-RC)	50	100	150	200	250
EP9107(-RC)	EP9122(-RC)	15	30	45	60	7							

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

Schematic



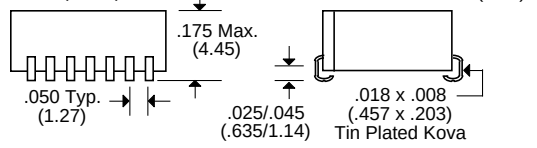
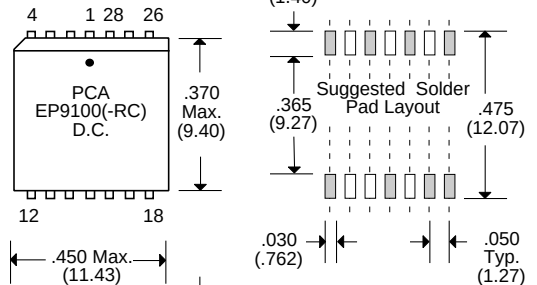
DC Electrical Characteristics		Test Conditions	Min.	Max.	Unit
V_{OH}	High-Level Output Voltage	$V_{CC} = \text{min.}$ $V_{IL} = \text{max.}$ $I_{OH} = \text{max}$	2.7		V
V_{OL}	Low-Level Output Voltage	$V_{CC} = \text{min.}$ $V_{IH} = \text{min.}$ $I_{OL} = \text{max}$		0.5	V
V_{IK}	Input Clamp Voltage	$V_{CC} = \text{min.}$ $I_I = I_{IK}$		-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	$V_{CC} = \text{max.}$ $V_{OUT} = 0.$	-40	-100	mA
		(One output at a time)			
I_{CCH}	High-Level Supply Current	$V_{CC} = \text{max.}$ $V_{IN} = \text{OPEN}$		75	mA
I_{CCL}	Low-Level Supply Current	$V_{CC} = \text{max.}$ $V_{IN} = 0$		75	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	

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

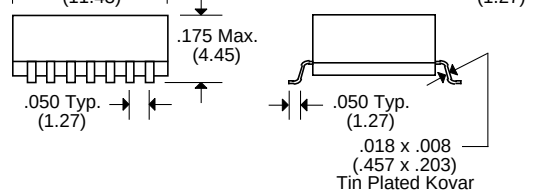
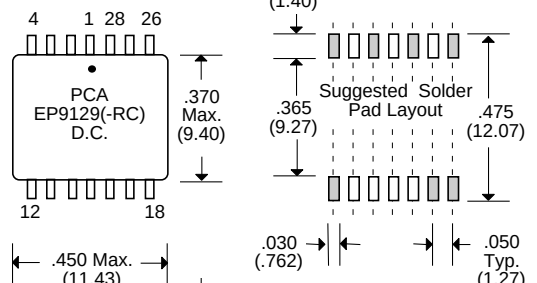
*These two values are inter-dependent.

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
PRR	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

J-Lead Package



Gull Wing Package



Notes :	EP91XX	EP91XX-RC
1. Assembly Process (Leadframe)	SnPb	Sn
(Solder Composition)	SnPb	SnPb (RoHS exemption 7a)
2. Peak Solder Rating (per IPC/JEDEC J-STD-020C)	225°C	260°C
3. Moisture Sensitive Levels (MSL) (per IPC/JEDEC J-STD-020C)	3 (168 hours, $\leq 30^\circ\text{C}/60\%\text{RH}$)	4 (72 hours, $\leq 30^\circ\text{C}/60\%\text{RH}$)
4. Weight	TBD grams	TBD grams
5. Packaging Information (Tube)	45 pieces/tube	45 pieces/tube

Unless Otherwise Specified Dimensions are in Inches /mm $\pm .010 / .25$