SMD 28 Pin 5 Tap TTL Compatible Active Delay Lines

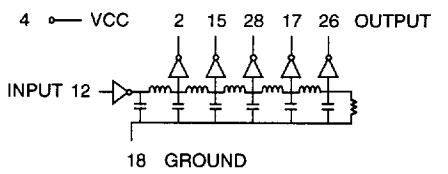
Delays are ±5% or ±2 nS† Tap	Total	J-Lead P/N	Gull-Wing P/N	Delays are ±5% or ±2 nS† Tap	Total	J-Lead P/N	Gull-Wing P/N
5, 10, 15, 20	25	EP9100	EP9115	20, 40, 60, 80	100	EP9108	EP9123
6, 12, 18, 24	30	EP9101	EP9116	25, 50, 75, 100	125	EP9109	EP9124
7, 14, 21, 28	35	EP9102	EP9117	30, 60, 90, 120	150	EP9110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

†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_{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 = I_{IK}		-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
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



Recommended Operating Conditions

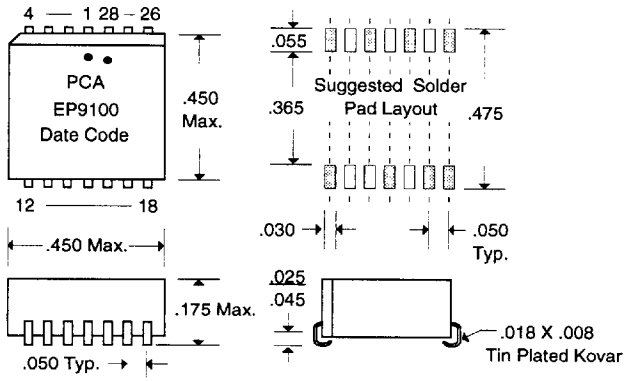
		Min	Max	Unit
V_{CC}	Supply Voltage	4.75	5.25	V
V_{IH}	High-Level Input Voltage	2.0		V
V_{IL}	Low-Level Input Voltage		0.8	V
I_{IK}	Input Clamp Current		-18	mA
I_{OH}	High-Level Output Current		-1.0	mA
I_{OL}	Low-Level Output Current		20	mA
P_W*	Pulse Width of Total Delay	40		%
d*	Duty Cycle		40	%
T_A	Operating Free-Air Temperature	0	+70	°C

**These two values are inter-dependent.*

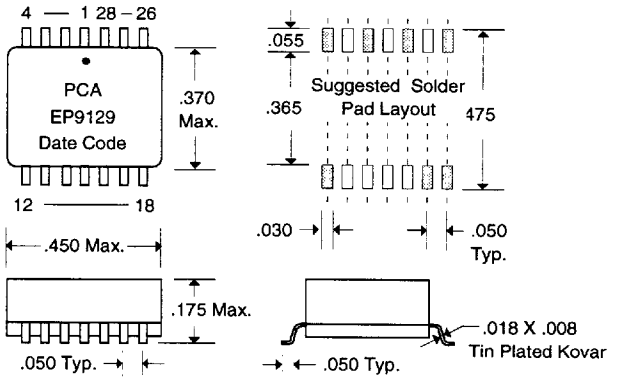
Input Pulse Test Conditions @ 25° C

			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 @ Td ≤ 200 nS	1.0	MHz
	Pulse Repetition Rate @ Td > 200 nS	100	KHz
V_{CC}	Supply Voltage	5.0	Volts

SMD J-Lead Package



SMD Gull-Wing Package



DSD91XXa Rev. A 2/5/96

QAF-CSO1 Rev. B 8/25/94

Unless Otherwise Noted Dimensions in Inches
Tolerances:
Fractional = ± 1/32
.XX = ± .030 .XXX = ± .010

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