

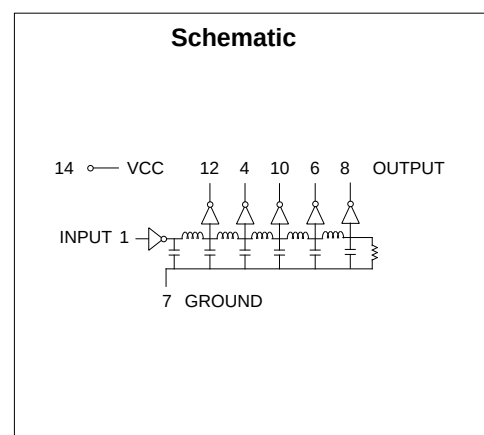
14 Pin DIP and SMD 5 Tap Low-Profile TTL Compatible Active Delay Lines

Compatible with standard auto-insertable equipment and can be used in either infrared or vapor phase process.

Delays are $\pm 5\%$ or ± 2 nS†		DIP Part Number	SMD Part Number	Delays are $\pm 5\%$ or ± 2 nS†		DIP Part Number	SMD Part Number
Tap	Total			Tap	Total		
5, 10, 15, 20	25	EP8200-HL	EPA073HL-25	40, 80, 120, 160	200	EP8204-HL	EPA073HL-200
6, 12, 18, 24	30	EP8213-HL	EPA073HL-30	45, 90, 135, 180	225	EP8221-HL	EPA073HL-225
7, 14, 21, 28	35	EP8214-HL	EPA073HL-35	50, 100, 150, 200	250	EP8205-HL	EPA073HL-250
8, 16, 24, 32	40	EP8215-HL	EPA073HL-40	60, 120, 180, 240	300	EP8206-HL	EPA073HL-300
9, 18, 27, 36	45	EP8216-HL	EPA073HL-45	70, 140, 210, 280	350	EP8207-HL	EPA073HL-350
10, 20, 30, 40	50	EP8201-HL	EPA073HL-50	80, 160, 240, 320	400	EP8208-HL	EPA073HL-400
12, 24, 36, 48	60	EP8211-HL	EPA073HL-60	84, 168, 252, 336	420	EP8218-HL	EPA073HL-420
15, 30, 45, 60	75	EP8217-HL	EPA073HL-75	88, 176, 264, 352	440	EP8222-HL	EPA073HL-440
20, 40, 60, 80	100	EP8202-HL	EPA073HL-100	90, 180, 270, 360	450	EP8209-HL	EPA073HL-450
25, 50, 75, 100	125	EP8219-HL	EPA073HL-125	84, 168, 282, 376	470	EP8223-HL	EPA073HL-470
30, 60, 90, 120	150	EP8203-HL	EPA073HL-150	100, 200, 300, 400	500	EP8210-HL	EPA073HL-500
35, 70, 105, 140	175	EP8220-HL	EPA073HL-175				

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

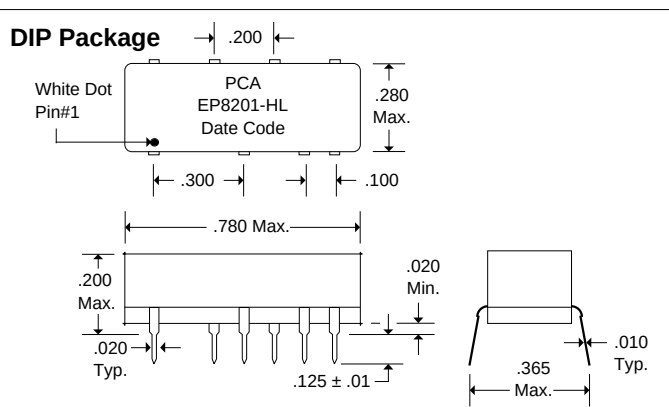
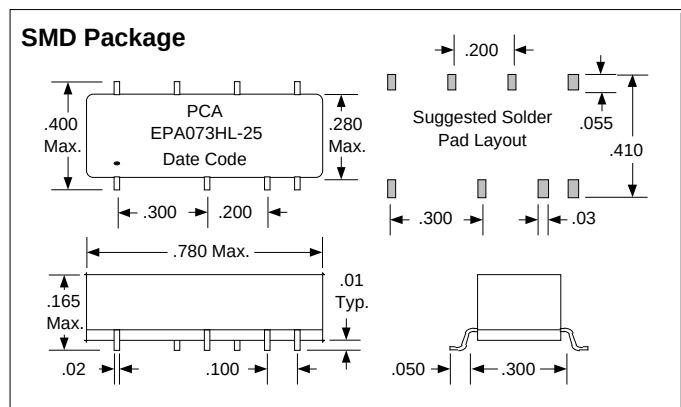
DC Electrical Characteristics			Min	Max	Unit
Parameter	Test Conditions				
V _{OH}	High-Level Output Voltage	V _{CC} = min. V _{IL} = max. I _{OH} = max	2.7		V
V _{OL}	Low-Level Output Voltage	V _{CC} = min. V _{IH} = min. I _{OL} = max		0.5	V
V _{IK}	Input Clamp Voltage	V _{CC} = min. I _I = I _{IK}		-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.	-40	-100	mA
		(One output at a time)			
I _{CC}	High-Level Supply Current	V _{CC} = max. V _{IN} = OPEN		75	mA
I _{CC}	Low-Level Supply Current	V _{CC} = max. V _{IN} = 0		75	mA
T _{RO}	Output Rise Time	T _d ≤ 500 nS (0.75 to 2.4 Volts)		4	nS
		T _d > 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	



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

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 ≤ 200 nS	1.0	MHz
	Pulse Repetition Rate @ T _d > 200 nS	100	KHz
V _{CC}	Supply Voltage	5.0	Volts

*These two values are inter-dependent.



DSD82XXHL & DSA073HL Rev. A 2/5/96

QAF-CS01 Rev. B 8/25/94

Unless Otherwise Noted Dimensions in Inches

Tolerances:
Fractional = $\pm 1/32$
.XX = $\pm .030$.XXX = $\pm .010$



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