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.

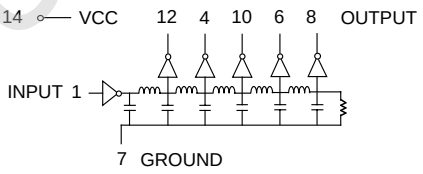
Delays are ±5% or ±2 nS† Tap	Total	DIP Part Number	SMD Part Number	Delays are ±5% or ±2 nS† Tap	Total	DIP Part Number	SMD Part Number
5, 10, 15, 20	25	EP8200-HL	EPA073HL-25	40, 80, 120, 160	200	EP8204-HL	EPA073HL-200
6, 12, 18, 24	30	EP8213-HL	EPA073HL-30	45, 90, 135, 180	225	EP8221-HL	EPA073HL-225
7, 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, 188, 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

	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
		Td > 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	

Schematic



Recommended Operating Conditions

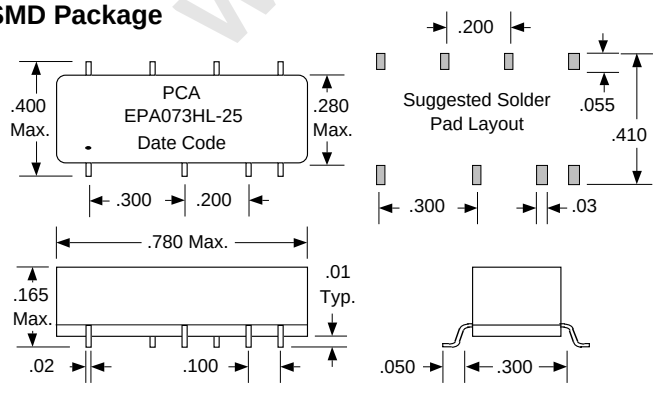
		Min	Max	Unit
V_{CC}	Supply Voltage	4.75	5.25	V
V_{IH}	High-Level Input Voltage	2.0		V
V_{IL}	Low-Level Input Voltage		0.8	V
I_{IK}	Input Clamp Current		-18	mA
I_{OH}	High-Level Output Current		-1.0	mA
I_{OL}	Low-Level Output Current		20	mA
P_W*	Pulse Width of Total Delay	40		%
d*	Duty Cycle		40	%
T_A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

**These two values are inter-dependent.*

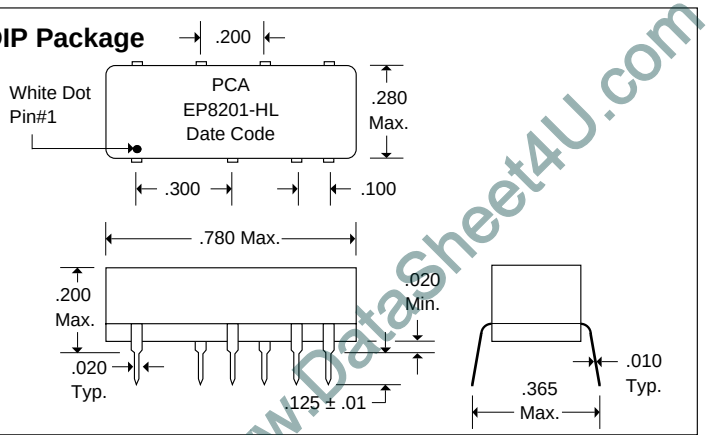
Input Pulse Test Conditions @ 25° C

			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 Package



DIP Package



DSD82XXHL & DSA073HL 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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