

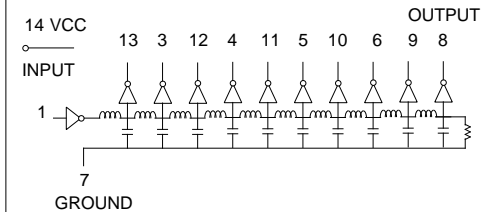
# 14 Pin DIP 10 Tap TTL Compatible Active Delay Lines

TAP DELAYS ±5% or ±2 nS†	TOTAL DELAYS ±5% or ±2 nS†	PART NUMBER	TAP DELAYS ±5% or ±2 nS†	TOTAL DELAYS ±5% or ±2 nS†	PART NUMBER
5	50	EP8301	44	440	EP8322
6	60	EP8311	45	450	EP8309
7.5	75	EP8317	47	470	EP8323
10	100	EP8302	50	500	EP8310
12.5	125	EP8319	55	550	EP8330
15	150	EP8303	60	600	EP8324
17.5	175	EP8320	65	650	EP8331
20	200	EP8304	70	700	EP8325
22.5	225	EP8321	75	750	EP8329
25	250	EP8305	80	800	EP8326
30	300	EP8306	85	850	EP8332
35	350	EP8307	90	900	EP8327
40	400	EP8308	95	950	EP8333
42	420	EP8318	100	1000	EP8328

† 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 <sub>OH</sub>	High-Level Output Voltage	V <sub>CC</sub> = min. V <sub>IL</sub> = max. I <sub>OH</sub> = max	2.7		V
V <sub>OL</sub>	Low-Level Output Voltage	V <sub>CC</sub> = min. V <sub>IH</sub> = min. I <sub>OL</sub> = max		0.5	V
V <sub>IK</sub>	Input Clamp Voltage	V <sub>CC</sub> = min. I <sub>I</sub> = I <sub>IK</sub>		-1.2V	V
I <sub>IH</sub>	High-Level Input Current	V <sub>CC</sub> = max. V <sub>IN</sub> = 2.7V		50	µA
		V <sub>CC</sub> = max. V <sub>IN</sub> = 5.25V		1.0	mA
I <sub>IL</sub>	Low-Level Input Current	V <sub>CC</sub> = max. V <sub>IN</sub> = 0.5V		-2	mA
I <sub>OS</sub>	Short Circuit Output Current	V <sub>CC</sub> = max. V <sub>OUT</sub> = 0.	-40	-100	mA
		(One output at a time)			
I <sub>CCH</sub>	High-Level Supply Current	V <sub>CC</sub> = max. V <sub>IN</sub> = OPEN		150	mA
I <sub>ACL</sub>	Low-Level Supply Current	V <sub>CC</sub> = max. V <sub>IN</sub> = 0		150	mA
T <sub>RO</sub>	Output Rise Time	T <sub>d</sub> ≤ 500 nS (0.75 to 2.4 Volts)		4	nS
		T <sub>d</sub> > 500 nS		5	nS
N <sub>H</sub>	Fanout High-Level Output	V <sub>CC</sub> = max. V <sub>OH</sub> = 2.7V		20 TTL LOAD	
N <sub>L</sub>	Fanout Low-Level Output	V <sub>CC</sub> = max. V <sub>OL</sub> = 0.5V		10 TTL LOAD	

## Schematic

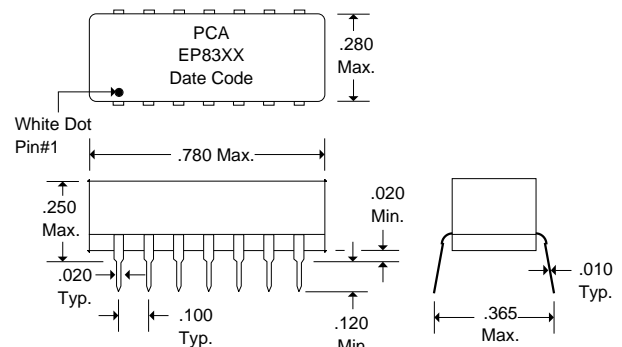


Recommended Operating Conditions		Min	Max	Unit
V <sub>CC</sub>	Supply Voltage	4.75	5.25	V
V <sub>IH</sub>	High-Level Input Voltage	2.0		V
V <sub>IL</sub>	Low-Level Input Voltage		0.8	V
I <sub>IK</sub>	Input Clamp Current		-18	mA
I <sub>OH</sub>	High-Level Output Current		-1.0	mA
I <sub>OL</sub>	Low-Level Output Current		20	mA
P <sub>W</sub> *	Pulse Width of Total Delay	40		%
d*	Duty Cycle		40	%
T <sub>A</sub>	Operating Free-Air Temperature	0	+70	°C

\*These two values are inter-dependent.

Input Pulse Test Conditions @ 25° C		Unit
E <sub>IN</sub>	Pulse Input Voltage	3.2 Volts
P <sub>W</sub>	Pulse Width % of Total Delay	110 %
T <sub>RI</sub>	Pulse Rise Time (0.75 - 2.4 Volts)	2.0 nS
P <sub>RR</sub>	Pulse Repetition Rate @ T <sub>d</sub> ≤ 200 nS	1.0 MHz
	Pulse Repetition Rate @ T <sub>d</sub> > 200 nS	100 KHz
V <sub>CC</sub>	Supply Voltage	5.0 Volts

## Package Dimensions



DSD83XX Rev. A 2/5/96

QAF-CS01 Rev. B 8/25/94

Unless Otherwise Noted Dimensions in Inches

Tolerances:  
Fractional = ± 1/32  
.XX = ± .030 .XXX = ± .010



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