14 Pin DIP and SMD 5 Tap Both Edges Controlled Fast Logic TTL Compatible Active Delay Lines

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

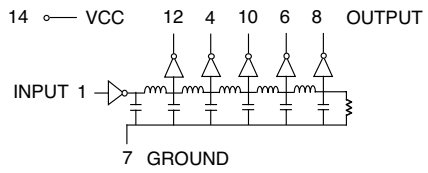
Input to Tap ± 5% or ± 2nS† Tap to Tap ± 7% or ± 2nS†		DIP Part Number	SMD Part Number	Input to Tap ± 5% or ± 2nS† Tap to Tap ± 7% or ± 2nS†		DIP Part Number	SMD Part Number
Tap	Total			Tap	Total		
5, 10, 15, 20	25	EPA3507-25	EPA3507G-25	40, 80, 120, 160	200	EPA3507-200	EPA3507G-200
6, 12, 18, 24	30	EPA3507-30	EPA3507G-30	45, 90, 135, 180	225	EPA3507-225	EPA3507G-225
7, 14, 21, 28	35	EPA3507-35	EPA3507G-35	50, 100, 150, 200	250	EPA3507-250	EPA3507G-250
8, 16, 24, 32	40	EPA3507-40	EPA3507G-40	60, 120, 180, 240	300	EPA3507-300	EPA3507G-300
9, 18, 27, 36	45	EPA3507-45	EPA3507G-45	70, 140, 210, 280	350	EPA3507-350	EPA3507G-350
10, 20, 30, 40	50	EPA3507-50	EPA3507G-50	80, 160, 240, 320	400	EPA3507-400	EPA3507G-400
12, 24, 36, 48	60	EPA3507-60	EPA3507G-60	84, 168, 252, 336	420	EPA3507-420	EPA3507G-420
15, 30, 45, 60	75	EPA3507-75	EPA3507G-75	88, 176, 264, 352	440	EPA3507-440	EPA3507G-440
20, 40, 60, 80	100	EPA3507-100	EPA3507G-100	90, 180, 270, 360	450	EPA3507-450	EPA3507G-450
25, 50, 75, 100	125	EPA3507-125	EPA3507G-125	84, 188, 282, 376	470	EPA3507-470	EPA3507G-470
30, 60, 90, 120	150	EPA3507-150	EPA3507G-150	100, 200, 300, 400	500	EPA3507-500	EPA3507G-500
35, 70, 105, 140	175	EPA3507-175	EPA3507G-175				

†Whichever is greater. *Delay measured @ 1.5V levels on leading and trailing edge w/ 15pF load on taps. Rise and Fall Time measured from 0.75 to 2.4V level.*

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 = II_K		-1.2	V
I_{IH}	High-Level Input Current	V_{CC} = Max. V_{IN} = 2.7V		20	μA
I_{IL}	Low-Level Input Current	V_{CC} = Max. V_{IN} = 0.5V		-0.6	mA
I_{OS}	Short Circuit Output Current	V_{CC} = Max. V_{OUT} = 0. (One output at a time)	-60	-150	mA
I_{CCH}	High-Level Supply Current	V_{CC} = Max. V_{IN} = OPEN		25	mA
I_{CCL}	Low-Level Supply Current	V_{CC} = Max. V_{IN} = 0		40	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	
T_C	Temp. Coeff. of Total Delay	100 + (25000/TD) PPM/°C			
T_{STG}	Storage Temp. Range	-20 °C to +100 °C			

Schematic



Input Pulse Test Conditions @ 25° C

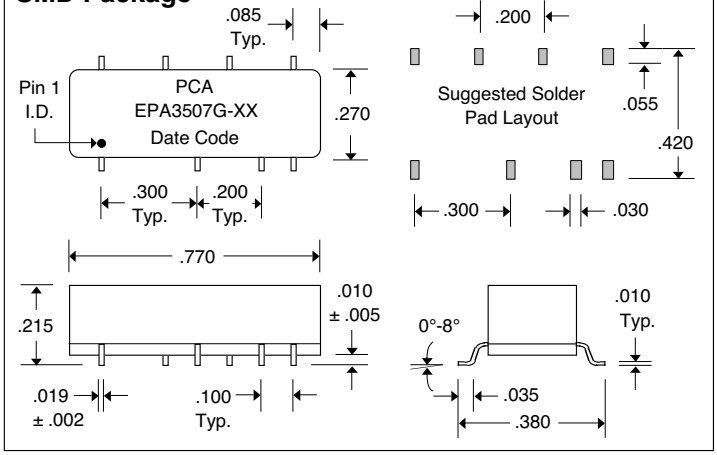
			Unit
E_{IN}	Pulse Input Voltage	3.2	Volts
P_W	Pulse Width 1.2X Total Delay	---	nS
T_{RI}	Pulse Rise Time (10 - 90%)	3.0	nS
P_{RR}	Pulse Repetition Rate 4X P_W	---	MHz
V_{CC}	Supply Voltage	5.0	Volts

Recommended Operating Conditions

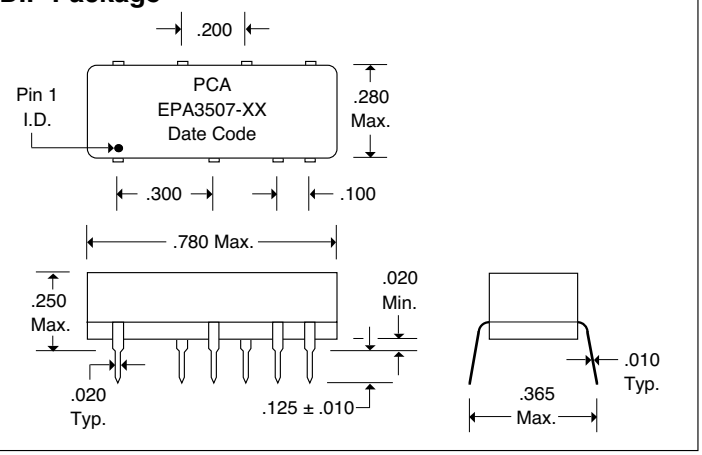
		Min.	Max.	Unit
V_{CC}	Supply Voltage	4.75	5.25	V
V_{IH}	High-Level Input Voltage	2.0		V
V_{IL}	Low-Level Input Voltage		0.8	V
I_{IK}	Input Clamp Current		-18	mA
I_{OH}	High-Level Output Current		-1.0	mA
I_{OL}	Low-Level Output Current		20	mA
P_W*	Input Pulse Width of Total Delay	40		%
d*	Duty Cycle		50	%
T_A	Operating Free-Air Temperature	0	+70	°C

**These two values are inter-dependent.*

SMD Package



DIP Package



DSA3507G-XX & DSA3507-XX Rev. - 7/22/98

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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