

8 Pin DIP Delayed Pulse Width Generator TTL Compatible Active Delay Line Modules

Features

- Precise output pulse width
- Positive-edge triggered (10 nS) min.
- Fast rise and fall time (4 nS max. measured from 0.75V to 2.4V)

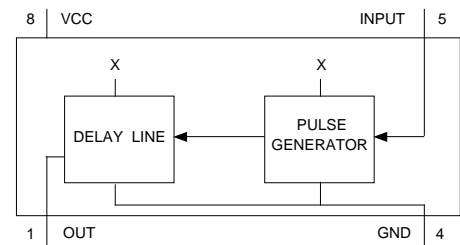
PART NUMBER**	PULSE WIDTH *	PART NUMBER**	PULSE WIDTH *
EPA230-(Td)-5	5 ±1	EPA230-(Td)-35	35 ±1.5
EPA230-(Td)-6	6 ±1	EPA230-(Td)-40	40 ±1.5
EPA230-(Td)-7	7 ±1	EPA230-(Td)-50	50 ±1.5
EPA230-(Td)-8	8 ±1	EPA230-(Td)-60	60 ±1.5
EPA230-(Td)-9	9 ±1	EPA230-(Td)-70	70 ±2
EPA230-(Td)-10	10 ±1	EPA230-(Td)-75	75 ±2
EPA230-(Td)-15	15 ±1	EPA230-(Td)-80	80 ±2
EPA230-(Td)-20	20 ±1	EPA230-(Td)-90	90 ±3
EPA230-(Td)-25	25 ±1	EPA230-(Td)-100	100 ±3
EPA230-(Td)-30	30 ±1		

* Measured at 1.5V Levels

** Td is the delay time (in nS) from trigger pulse to the leading edge of the output pulse.

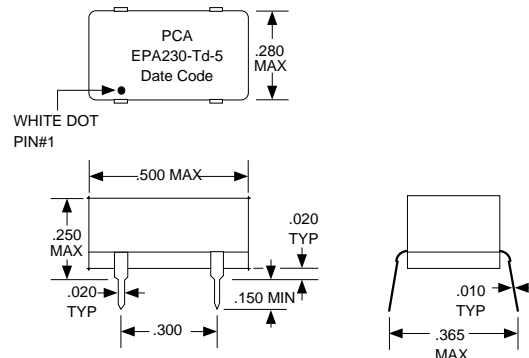
DC Electrical Characteristics		Test Conditions	Min	Max	Unit
V _{OH}	High-Level Output Voltage	V _{CC} = min. V _{IL} = max. I _{OH} = max	2.7		V
V _{OL}	Low-Level Output Voltage	V _{CC} = min. V _{IH} = min. I _{OL} = max		0.5	V
V _{IK}	Input Clamp Voltage	V _{CC} = min. I _I = I _{IK}		-1.2V	V
I _{IH}	High-Level Input Current	V _{CC} = max. V _{IN} = 2.7V		50	µA
I _{IL}	Low-Level Input Current	V _{CC} = max. V _{IN} = 0.5V		-2	mA
I _{OS}	Short Circuit Output Current	V _{CC} = max.	-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
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	Period	P _{WO} x2		nS
P _{WI}	Input Pulse Width	10		nS
T _A	Operating Free-Air Temperature	0	+70	°C

Package



Input Pulse Test Conditions @ 25° C		Unit	
E _{IN}	Pulse Input Voltage	3.2	Volts
T _{RI}	Pulse Rise Time	2.0	nS
P _{WI}	Pulse Width	10	nS
P	Period	P _{WO} x2	nS
	(For EP9981-5)	20	nS
V _{CC}	Supply Voltage	5.0	Volts

DSA230 8/25/94

QAF-CSO1c Rev. B 8/25/94

Unless Otherwise Noted Dimensions in Inches

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



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14 Pin DIP Delayed Pulse Width Generator TTL Compatible Active Delay Line Modules

Features

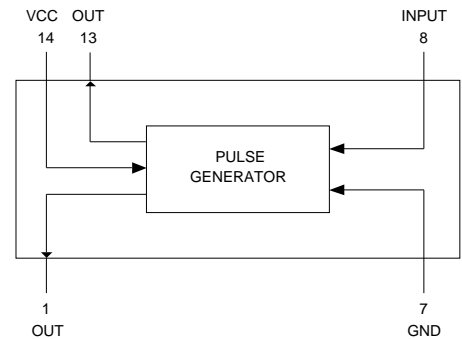
- Precise output pulse width
- Positive-edge triggered (10 nS) min.
- Fast rise and fall time (4 nS max. measured from 0.75V to 2.4V)
- Low Profile 14 pin DIP for auto-insertion
- Propagation Delays : 7 ± 2 nS from pin 8 to pin 1
: 7 ± 2 nS from pin 8 to pin 13

PART NUMBER	PULSE WIDTH * ± 2 NS or $\pm 5\% \dagger$ (PWO)	MAX OUTPUT FREQ (mHz)
EP9981-5	5	100
EP9981-10	10	50
EP9981-15	15	33
EP9981-20	20	25
EP9981-25	25	20
EP9981-30	30	16
EP9981-35	35	14
EP9981-40	40	12
EP9981-45	45	11
EP9981-50	50	10
EP9981-60	60	8.4
EP9981-70	70	7.1
EP9981-80	80	6.3
EP9981-90	90	5.5
EP9981-100	100	5.0

* Measured at 1.5V Levels
† Whichever is greater.

DC Electrical Characteristics		Test Conditions	Min	Max	Unit
V_{OH}	High-Level Output Voltage	$V_{CC} = \text{min. } V_{IL} = \text{max. } I_{OH} = \text{max}$	2.7		V
V_{OL}	Low-Level Output Voltage	$V_{CC} = \text{min. } V_{IH} = \text{min. } I_{OL} = \text{max}$		0.5	V
V_{IK}	Input Clamp Voltage	$V_{CC} = \text{min. } I_I = I_{IK}$		-1.2V	V
I_{IH}	High-Level Input Current	$V_{CC} = \text{max. } V_{IN} = 2.7V$		50	μA
I_{IL}	Low-Level Input Current	$V_{CC} = \text{max. } V_{IN} = 0.5V$		-2	mA
I_{OS}	Short Circuit Output Current	$V_{CC} = \text{max.}$	-40	-100	mA
I_{CCH}	High-Level Supply Current	$V_{CC} = \text{max. } V_{IN} = \text{OPEN}$		75	mA
I_{CCL}	Low-Level Supply Current	$V_{CC} = \text{max. } V_{IN} = 0$		75	mA
N_H	Fanout High-Level Output	$V_{CC} = \text{max. } V_{OH} = 2.7V$		20 TTL LOAD	
N_L	Fanout Low-Level Output	$V_{CC} = \text{max. } V_{OL} = 0.5V$		10 TTL LOAD	

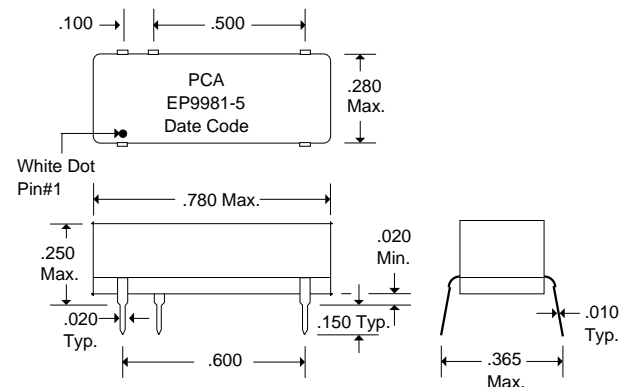
Schematic



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	Period	$P_{WO} \times 2$		nS
P_{WI}	Input Pulse Width	10		nS
T_A	Operating Free-Air Temperature	0	+70	$^{\circ}C$

Input Pulse Test Conditions @ 25 $^{\circ}C$		Unit
E_{IN}	Pulse Input Voltage	3.2 Volts
T_{RI}	Pulse Rise Time	2.0 nS
P_{WI}	Pulse Width	10 nS
P	Period	$P_{WO} \times 2$ nS
V_{CC}	Supply Voltage	5.0 Volts

Package



DSD9981 Rev. A 2/5/96

QAF-CSO1c Rev. B 8/25/94

Unless Otherwise Noted Dimensions in Inches
Tolerances:
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.XX = $\pm .030$.XXX = $\pm .010$



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