

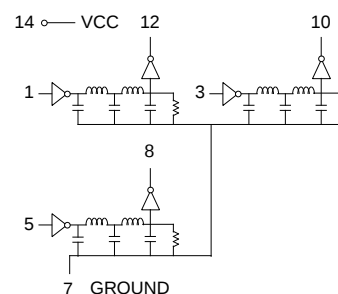
14 Pin DIP High Precision Triple Output TTL Compatible Active Delay Lines

DELAY TIME (nS)	PART NUMBER	DELAY TIME (nS)	PART NUMBER	DELAY TIME (nS)	PART NUMBER
5±1	EPA1825-5	19±1	EPA1825-19	65±2.5	EPA1825-65
6±1	EPA1825-6	20±1	EPA1825-20	70±2.5	EPA1825-70
7±1	EPA1825-7	21±1	EPA1825-21	75±2.5	EPA1825-75
8±1	EPA1825-8	22±1	EPA1825-22	80±2.5	EPA1825-80
9±1	EPA1825-9	23±1	EPA1825-23	85±3	EPA1825-85
10±1	EPA1825-10	24±1	EPA1825-24	90±3	EPA1825-90
11±1	EPA1825-11	25±1	EPA1825-25	95±3	EPA1825-95
12±1	EPA1825-12	30±1.5	EPA1825-30	100±3	EPA1825-100
13±1	EPA1825-13	35±1.5	EPA1825-35	125±4	EPA1825-125
14±1	EPA1825-14	40±1.5	EPA1825-40	150±4.5	EPA1825-150
15±1	EPA1825-15	45±2	EPA1825-45	175±5	EPA1825-175
16±1	EPA1825-16	50±2	EPA1825-50	200±6	EPA1825-200
17±1	EPA1825-17	55±2	EPA1825-55	225±7	EPA1825-225
18±1	EPA1825-18	60±2	EPA1825-60	250±8	EPA1825-250

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	2.7		V	
V _{OL}	Low-Level Output Voltage		0.5	V	
V _{IK}	Input Clamp Voltage		-1.2V	V	
I _{IH}	High-Level Input Current		50	µA	
	V _{CC} = max. V _{IN} = 2.7V		1.0	mA	
	V _{CC} = max. V _{IN} = 5.25V		-2	mA	
I _{IL}	Low-Level Input Current		-2	mA	
I _{OS}	Short Circuit Output Current	-40	-100	mA	
	V _{CC} = max. V _{OUT} = 0. (One output at a time)				
I _{CC}	High-Level Supply Current		115	mA	
I _{CL}	Low-Level Supply Current		115	mA	
T _{RO}	Output Rise Time		4	nS	
N _H	Fanout High-Level Output		20 TTL LOAD		
N _L	Fanout Low-Level Output		10 TTL LOAD		
	V _{CC} = max. V _{OH} = 2.7V				
	V _{CC} = max. V _{OL} = 0.5V				

Schematic

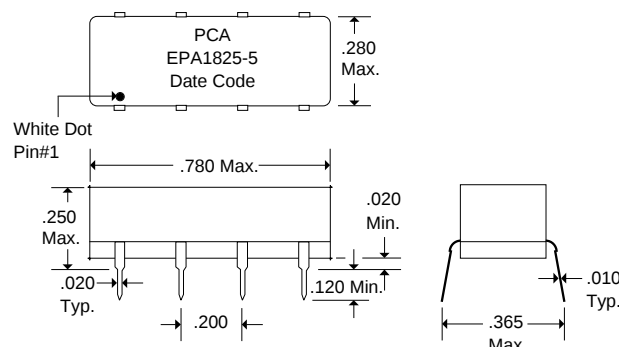


Recommended Operating Conditions		Min	Max	Unit
V _{CC}	Supply Voltage	4.75	5.25	V
V _{IH}	High-Level Input Voltage	2.0		V
V _{IL}	Low-Level Input Voltage		0.8	V
I _{IK}	Input Clamp Current		-18	mA
I _{OH}	High-Level Output Current		-1.0	mA
I _{OL}	Low-Level Output Current		20	mA
PW*	Pulse Width of Total 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
PW	Pulse Width % of Total Delay	110	%
T _{RI}	Pulse Rise Time (0.75 - 2.4 Volts)	2.0	nS
PRR	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

Package Dimensions



DSA1825 8/25/94

Unless Otherwise Noted Dimensions in Inches

Tolerances:

Fractional = ± 1/32

.XX = ± .030 .XXX = ± .010



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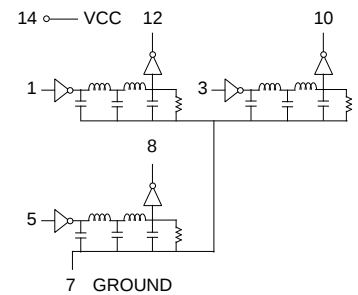
14 Pin DIP Triple TTL Compatible Active Delay Lines

DELAY TIME ±5% or ±2 nS†	PART NUMBER	DELAY TIME ±5% or ±2 nS†	PART NUMBER	DELAY TIME ±5% or ±2 nS†	PART NUMBER
5	EP9206-005	19	EP9206-019	65	EP9206-065
6	EP9206-006	20	EP9206-020	70	EP9206-070
7	EP9206-007	21	EP9206-021	75	EP9206-075
8	EP9206-008	22	EP9206-022	80	EP9206-080
9	EP9206-009	23	EP9206-023	85	EP9206-085
10	EP9206-010	24	EP9206-024	90	EP9206-090
11	EP9206-011	25	EP9206-025	95	EP9206-095
12	EP9206-012	30	EP9206-030	100	EP9206-100
13	EP9206-013	35	EP9206-035	125	EP9206-125
14	EP9206-014	40	EP9206-040	150	EP9206-150
15	EP9206-015	45	EP9206-045	175	EP9206-175
16	EP9206-016	50	EP9206-050	200	EP9206-200
17	EP9206-017	55	EP9206-055	225	EP9206-225
18	EP9206-018	60	EP9206-060	250	EP9206-250

†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}	-1.2V	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	mA	
I _{CCH}	High-Level Supply Current	V _{CC} = max. V _{IN} = OPEN	115	mA	
I _{CCL}	Low-Level Supply Current	V _{CC} = max. V _{IN} = 0	115	mA	
T _{RO}	Output Rise Time	T _d ≤ 500 nS (0.75 to 2.4 Volts)	4	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

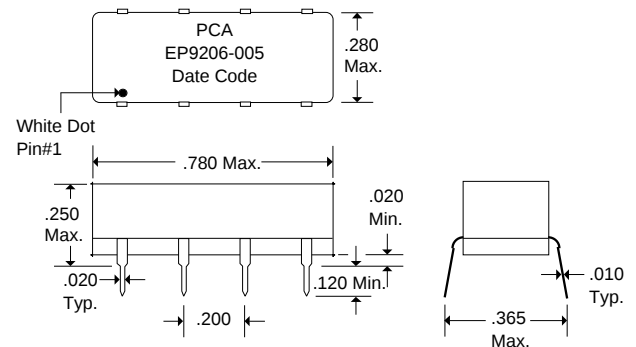


Recommended Operating Conditions		Min	Max	Unit
V _{CC}	Supply Voltage	4.75	5.25	V
V _{IH}	High-Level Input Voltage	2.0		V
V _{IL}	Low-Level Input Voltage		0.8	V
I _{IK}	Input Clamp Current		-18	mA
I _{OH}	High-Level Output Current		-1.0	mA
I _{OL}	Low-Level Output Current		20	mA
PW*	Pulse Width of Total 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
PW	Pulse Width % of Total Delay	110	%
T _{RI}	Pulse Rise Time (0.75 - 2.4 Volts)	2.0	nS
PRR	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

Package Dimensions



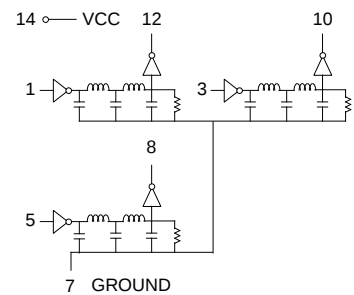
14 Pin DIP Triple TTL High Speed Delay Line

DELAY TIME ±5% or 2nS†	PART NUMBER	DELAY TIME ±5% or 2nS†	PART NUMBER	DELAY TIME ±5% or 2nS†	PART NUMBER
5	EPA313-5	19	EPA313-19	65	EPA313-65
6	EPA313-6	20	EPA313-20	70	EPA313-70
7	EPA313-7	21	EPA313-21	75	EPA313-75
8	EPA313-8	22	EPA313-22	80	EPA313-80
9	EPA313-9	23	EPA313-23	85	EPA313-85
10	EPA313-10	24	EPA313-24	90	EPA313-90
11	EPA313-11	25	EPA313-25	95	EPA313-95
12	EPA313-12	30	EPA313-30	100	EPA313-100
13	EPA313-13	35	EPA313-35	125	EPA313-125
14	EPA313-14	40	EPA313-40	150	EPA313-150
15	EPA313-15	45	EPA313-45	175	EPA313-175
16	EPA313-16	50	EPA313-50	200	EPA313-200
17	EPA313-17	55	EPA313-55	225	EPA313-225
18	EPA313-18	60	EPA313-60	250	EPA313-250

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

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
		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		115		mA
I _{CCL}	Low-Level Supply Current	V _{CC} = max. V _{IN} = 0		115		mA
T _{RO}	Output Rise Time	T _d ≤ 500 nS (0.75 to 2.4 Volts)		4		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

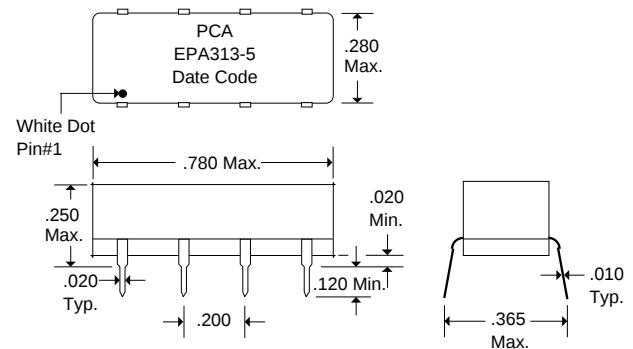


Recommended Operating Conditions		Min	Max	Unit
V _{CC}	Supply Voltage	4.75	5.25	V
V _{IH}	High-Level Input Voltage	2.0		V
V _{IL}	Low-Level Input Voltage		0.8	V
I _{IK}	Input Clamp Current		-18	mA
I _{OH}	High-Level Output Current		-1.0	mA
I _{OL}	Low-Level Output Current		20	mA
PW*	Pulse Width of Total 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
PW	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

Package Dimensions



DSA313 Rev. A 2/5/96

Unless Otherwise Noted Dimensions in Inches

Tolerances:

Fractional = ± 1/32

.XX = ± .030 .XXX = ± .010



ELECTRONICS INC.

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