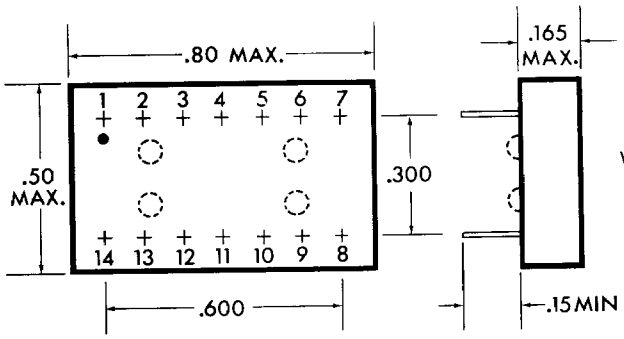
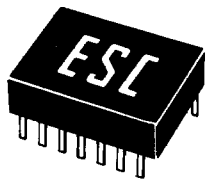
LOW PROFILE
DIGITAL DELAY LINES
14 PIN PACKAGE
TTL COMPATIBLE
5 TAPS • SINGLE • DUAL • TRIPLE
FOR MILITARY APPLICATIONS

SERIES 9T, 9G, 9D AND 9P



White Dot locates Pin 1



ONLY ACTIVE PINS ARE SUPPLIED

Available with .015 standoffs. Add suffix S to part number when ordering.
The height of the 9P series is .200, with standoffs it is .215 max.

Intermediate delay values available upon request.

SERIES 9T (5 TAP)		
Model No. (Fig. 1)	Delay ns	Delay/Tap ns
9T25	25	5
9T30	30	6
9T35	**35**	7
9T40	40	8
9T45	45	9
9T50	**50**	10
9T75	75	15
9T100	100	20
9T150	**150**	30
9T200	200	40
9T250	250	50
9T300	**300**	60
9T400	400	80
9T500	500	100

Delay/ Line(ns)	MODEL NUMBERS		
	Series 9G	Series 9D	Series 9P
	One output (Fig. 2)	Dual output (Fig. 3)	Triple output (Fig. 4)
5	9G5	9D5	9P5
10	9G10	9D10	9P10
15	**9G15**	**9D15**	**9P15**
20	9G20	9D20	9P20
25	9G25	9D25	9P25
30	**9G30**	**9D30**	**9P30**
35	9G35	9D35	9P35
40	9G40	9D40	9P40
45	**9G45**	**9D45**	**9P45**
50	9G50	9D50	9P50
60	9G60	9D60	—
75	**9G75**	**9D75**	—
100	9G100	9D100	—
125	9G125	—	—
150	**9G150**	—	—
200	9G200	—	—
250	9G250	—	—
300	**9G300**	—	—
400	9G400	—	—
500	9G500	—	—

DC PARAMETERS		LIMITS	
		Min.	Max.
V_{oh}	Vcc = min I_{oh} = 1.0 mA	2.5V	—
V_{ol}	Vcc = min I_{ol} = 20 mA	—	0.5V
I_{ih}	Vcc = max V_{ih} = 2.7V	—	50 µA
I_{il}	Vcc = max V_{il} = 0.5V	-2.0 mA	—
I_i	Vcc = max V_i = 5.5V	—	1.0 mA
V_i	Vcc = min I_{in} = -18 madc	-1.2vdc	—
I_{cc}	Vcc = max outputs low	Series 9T 70mA Series 9G 55mA Series 9D 100mA Series 9P 120mA	

For variations in delay from above listing, modify part number by changing delay.
Example: 125ns, 9T series becomes 9T125.

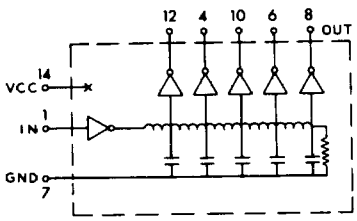


FIG. 1

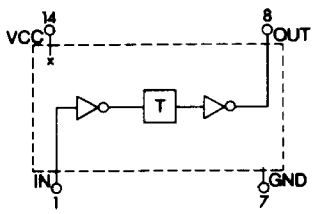


FIG. 2

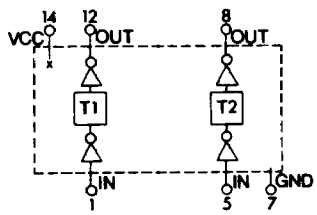


FIG. 3

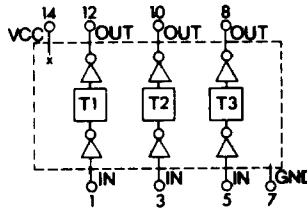


FIG. 4

SPECIFICATIONS:

- Supply voltage(Vcc): 5.0VDC ± 10%
- Delay tolerances: ± 2ns or ± 5% wig
- Rise time: 4ns max
- Minimum pulse width: 40% of Total delay
- Maximum duty cycle: 50%
- Operating temp. range: -55°C to + 125°C
- Temp. coeff. of delay: 1.0ns + 500ppm/°C
- Terminals: Electro tin plated alloy 42 .020w x .010th.

TEST CONDITIONS:

- Temperature: 25° ± 5°C; Vcc=5.0VDC
- Input pulse width: 1.2 times the total delay time
- Pulse spacing: 5 times the total delay time
- Input rise time: 2ns; input pulse amplitude 3.0VDC
- All outputs loaded with 15pf
- Time delays measured at the 1.5 volts level on the leading edges
- Rise time measured from .75 to 2.4V

These devices are supplied with ceramic packaged IC's that have been screened to MIL-STD-883.

ESC ELECTRONICS CORP. / 534 Bergen Blvd. / Palisades Park, N.J. 07650 / (201) 947-0400 / TWX 710-991-9780