

# DIGITAL DELAY LINES

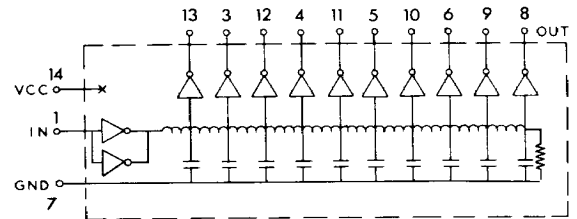
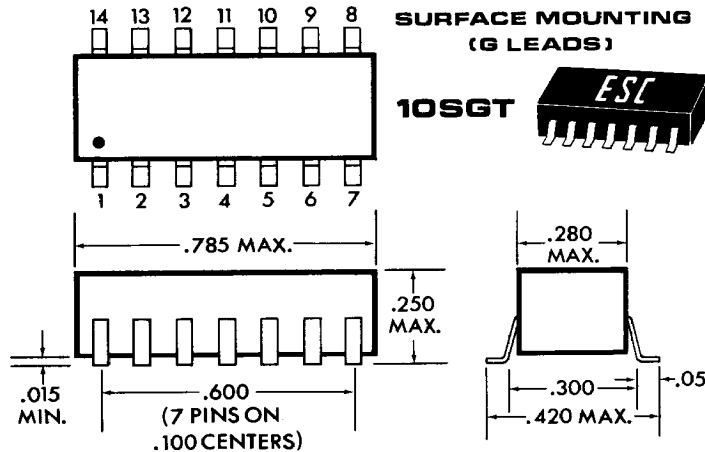
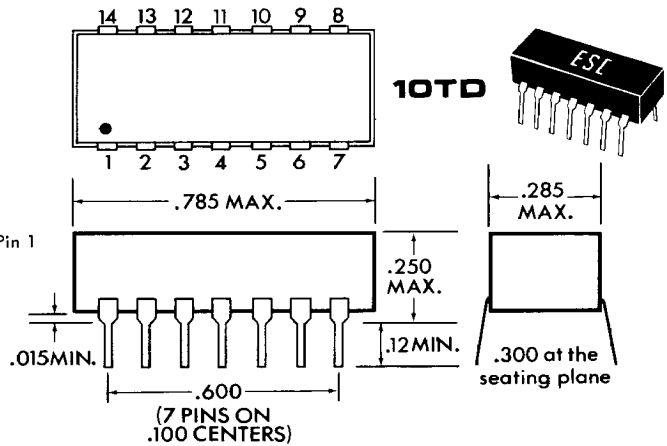
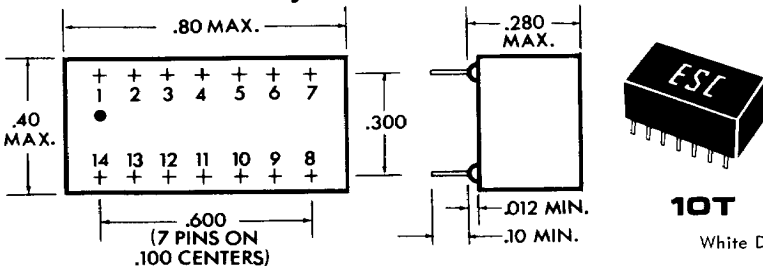
## TTL COMPATIBLE • 14 PIN PACKAGE

### 10 TAPS

ALL TYPES AVAILABLE IN LP SCHOTTKY  
AS SERIES 10T, 10TD AND 10SGT

#### SERIES 10T, 10TD AND 10SGT

#### MACHINE INSERTABLE LOW PROFILE DIP



Intermediate delay values available upon request.

Model Nos.			Delay (ns)	Delay/Tap (ns)
Series 10T	Series 10TD	Series 10SGT		
10T50	10TD50	10SGT50	50	5
10T60	10TD60	10SGT60	60	6
10T70	10TD70	10SGT70	70	7
10T80	10TD80	10SGT80	80	8
10T90	10TD90	10SGT90	90	9
10T100	10TD100	10SGT100	100	10
10T200	10TD200	10SGT200	200	20
10T250	10TD250	10SGT250	250	25
10T300	10TD300	10SGT300	300	30
10T350	10TD350	10SGT350	350	35
10T400	10TD400	10SGT400	400	40
10T450	10TD450	10SGT450	450	45
10T500	10TD500	10SGT500	500	50
10T750	10TD750	10SGT750	750	75
10T1000	10TD1000	10SGT1000	1000	100

DC PARAMETERS		LIMITS	
		Min.	Max.
$V_{oh}$	$V_{cc} = \min$ $I_{oh} = 1.0 \text{ mA}$	2.5V	—
$V_{ol}$	$V_{cc} = \min$ $I_{ol} = 20 \text{ mA}$	—	0.5V
$I_{th}$	$V_{cc} = \max$ $V_i = 2.7V$	—	50 $\mu\text{A}$
$I_{il}$	$V_{cc} = \max$ $V_i = 0.5V$	-2.0 mA	—
$I_i$	$V_{cc} = \max$ $V_i = 5.5V$	—	1.0 mA
$V_i$	$V_{cc} = \min$ $I_{in} = -18 \text{ mdc}$	-1.2vdc	—
$I_{cc}$	$V_{cc} = \max$ outputs low	—	140 mA

For variations in delay from above listing, modify part number by changing delay. Example: 375ns, 10SGT series becomes 10SGT375

#### SPECIFICATIONS:

- Supply voltage: 5.0VDC  $\pm$  10%
- Delay tolerances:  $\pm$  2ns or  $\pm$  5% wig
- Rise time: 4ns max
- Minimum pulse width: 20% of Total Delay
- Maximum duty cycle: 50%
- \* ● Operating temp. range: 0°C to +70°C
- Temp. coeff. of delay: 1.0ns + 500ppm/°C
- Terminals: .020w x .010th, alloy 42

#### TEST CONDITIONS:

- Temperature: 25°  $\pm$  5°C,  $V_{cc}$ =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

\* ESC can also supply the 10T Series with ceramic IC's that have been screened to MIL-STD-883 for -55°C to +125°C operation. The height will increase to .32 inches. When specifying, add letter "C" after "T". Example: 10T50 converts to 10TC50.

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