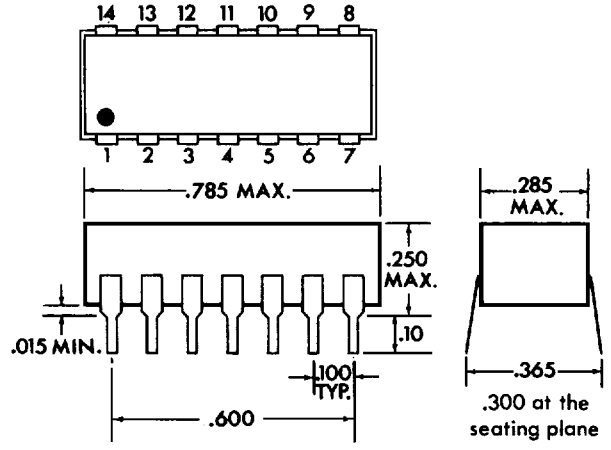




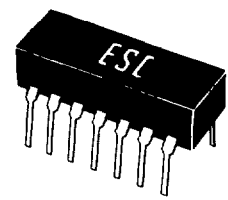
LOW POWER SCHOTTKY DIGITAL DELAY LINES

TTL COMPATIBLE • 14 PIN PACKAGE MACHINE INSERTABLE DIP 5 TAPS • SINGLE • DUAL • TRIPLE

SERIES 14LTD, 14LGD, 14LDD AND 14LPD



White Dot locates Pin 1



ONLY ACTIVE PINS ARE SUPPLIED

Intermediate delay values available upon request.

| SERIES 14LTD (5 TAP) | | |
|----------------------|------------|--------------------|
| MODEL NO. (Fig. 1) | Delay (ns) | Delay/Tap Tap (ns) |
| 14LTD25 | 25 | 5 |
| 14LTD30 | 30 | 6 |
| 14LTD35 | 35 | 7 |
| 14LTD40 | 40 | 8 |
| 14LTD45 | 45 | 9 |
| 14LTD50 | 50 | 10 |
| 14LTD60 | 60 | 12 |
| 14LTD75 | 75 | 15 |
| 14LTD100 | 100 | 20 |
| 14LTD125 | 125 | 25 |
| 14LTD200 | 200 | 40 |
| 14LTD250 | 250 | 50 |
| 14LTD300 | 300 | 60 |
| 14LTD400 | 400 | 80 |
| 14LTD500 | 500 | 100 |

| Delay/line(ns) | MODEL NUMBERS | | |
|----------------|---------------------|----------------------|------------------------|
| | Series 14LGD | Series 14LDD | Series 14LPD |
| | One output (Fig. 2) | Dual output (Fig. 3) | Triple output (Fig. 4) |
| 10 | 14LGD10 | 14LDD10 | 14LPD10 |
| 15 | 14LGD15 | 14LDD15 | 14LPD15 |
| 20 | 14LGD20 | 14LDD20 | 14LPD20 |
| 25 | 14LGD25 | 14LDD25 | 14LPD25 |
| 30 | 14LGD30 | 14LDD30 | 14LPD30 |
| 35 | 14LGD35 | 14LDD35 | 14LPD35 |
| 40 | 14LGD40 | 14LDD40 | 14LPD40 |
| 50 | 14LGD50 | 14LDD50 | 14LPD50 |
| 60 | 14LGD60 | 14LDD60 | 14LPD60 |
| 70 | 14LGD70 | 14LDD70 | 14LPD70 |
| 75 | 14LGD75 | 14LDD75 | 14LPD75 |
| 100 | 14LGD100 | 14LDD100 | 14LPD100 |
| 125 | 14LGD125 | 14LDD125 | 14LPD125 |
| 200 | 14LGD200 | 14LDD200 | 14LPD200 |
| 250 | 14LGD250 | 14LDD250 | 14LPD250 |
| 300 | 14LGD300 | - | - |
| 400 | 14LGD400 | - | - |
| 500 | 14LGD500 | - | - |

| DC PARAMETERS | | LIMITS | |
|---------------|--|--|------------------------------|
| | | Min. | Max. |
| V_{oh} | $V_{cc} = \min$ $I_{oh} = -0.40\text{mA}$ | 2.5V | — |
| V_{ol} | $V_{cc} = \min$ $I_{ol} = 8.0\text{mA}$ | — | 0.5V |
| I_{th} | $V_{cc} = \max$ $V_{ih} = 2.7V$ | — | 20 μA |
| I_{il} | $V_{cc} = \max$ $V_{il} = 0.40$ | -0.40mA | — |
| I_i | $V_{cc} = \max$ $V_{il} = 5.5V$ | — | 0, 10mA |
| V_i | $V_{cc} = \min$ $I_{in} = -18\text{mA}$ | -1.5vdc | — |
| I_{cc} | $V_{cc} = \max$ outputs low | Series 14LTD Series 14LGD Series 14LDD Series 14LPD | 25mA 20mA 36mA 43mA |

For variations in delay from above listing, modify part number by changing delay.
Example: 450ns, 14LTD series becomes 14LTD450.

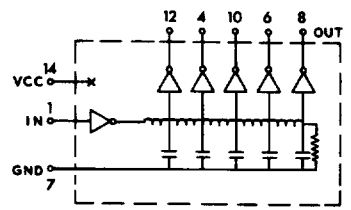


FIG. 1

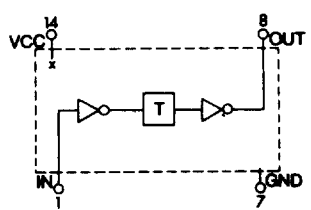


FIG. 2

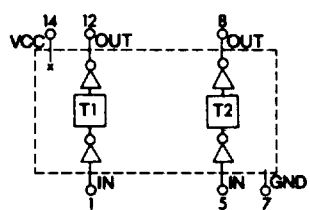


FIG. 3

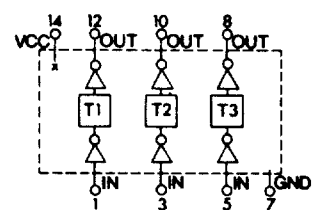


FIG. 4

SPECIFICATIONS:

- Supply voltage: 5.0VDC $\pm 5\%$
- Delay tolerances: $\pm 3\text{ns}$ or $\pm 5\%$ whichever is greater
- Rise Time: 8.0ns max
- Minimum Pulse Width: 40% of Total Delay
- Maximum Duty Cycle: 50%
- Operating temp. range: 0°C to 70°C
- Temp. coeff. of delay: 1.0ns + 1000ppm/°C
- Terminals: Electro tin plated alloy 42 .020w x .010th

TEST CONDITIONS:

- Temperature: 25° $\pm 5^\circ\text{C}$; $V_{cc}=5.0\text{VDC}$
- 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