

# High-Performance Surface-Mount TTL Delay Lines

CTTLDL,  
BJTTLDL,  
GBTTLDL,  
BTTLDL

- Five equal taps in 20% increments of total delay.
- Lumped constant, active series.
- Transfer-molded packaging for highest reliability.
- Designed for leading edge timing. Trailing edge timing available.
- Supports Schottky TTL, FAST, and FACT logics.
- Fanout 1 -- 20 loads; logic 0 -- 10 loads.
- Temperature coefficient  $\pm 2$  ns or  $\pm 4\%$  (whichever is greater) at maximum delay, 0 to 70°C.
- Military models with temperature range -55 to +125°C and ceramic package IC to meet MIL-STD-883C, but not screened to that specification, add suffix "M" to part number.
- Military models as above, but with ceramic package IC screened to MIL-STD 883C and 38510, add suffix "MX" to part number.
- Military models as "MX" above, but with in-house burn-in and thermal shock, add suffix "MY".

## LOW PROFILE SURFACE-MOUNT 5-TAP TTL DELAY LINES

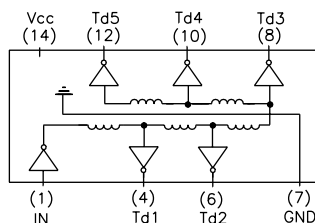
| TECHNITROL PART NO. | TAP DELAYS (ns) |                 |                 |                 |                 | ALL TAPS        |                 |
|---------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                     | T <sub>D1</sub> | T <sub>D2</sub> | T <sub>D3</sub> | T <sub>D4</sub> | T <sub>D5</sub> | T <sub>RO</sub> | T <sub>FO</sub> |
| CTTLDL025           | 5.0             | 10.0            | 15.0            | 20.0            | 25.0            | 2.0             | 2.0             |
| CTTLDL050           | 10.0            | 20.0            | 30.0            | 40.0            | 50.0            | 2.0             | 2.0             |
| CTTLDL075           | 15.0            | 30.0            | 45.0            | 60.0            | 75.0            | 2.0             | 2.0             |
| CTTLDL100           | 20.0            | 40.0            | 60.0            | 80.0            | 100.0           | 2.0             | 5.0             |
| CTTLDL125           | 25.0            | 50.0            | 75.0            | 100.0           | 125.0           | 2.0             | 5.0             |
| CTTLDL150           | 30.0            | 60.0            | 90.0            | 120.0           | 150.0           | 2.0             | 6.0             |
| CTTLDL200           | 40.0            | 80.0            | 120.0           | 160.0           | 200.0           | 2.0             | 7.0             |

0.175" MAX HEIGHT

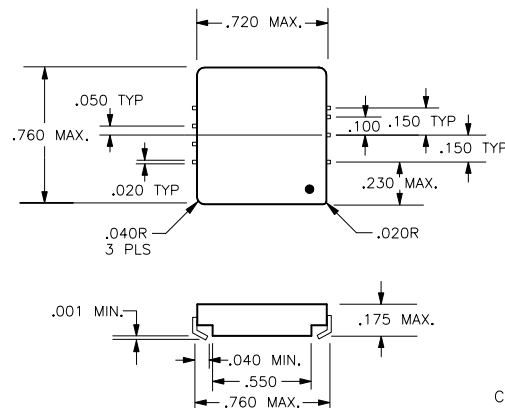
For TTL delay lines qualified to MIL-D-83532, refer to PSC information sheet entitled "QPL Active Delay Lines."

Delay Characteristics measured at  $V_{CC} = 5.0V$ , 25°C, no load.  
 Delay Tolerance  $\pm 2$  ns or 5%, whichever is greater.  
 Rise time measured @ 0.8V to 2.0V levels.  
 For minimum input pulse width -- contact factory.

### SCHEMATIC



### MECHANICAL OUTLINE



### Notes

- Pin numbers shown are for reference only and are not necessarily marked on unit.
- Lead material is electro tin plated (alloy 42) or solder dipped.
- All specifications are subject to change without notice.



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## SURFACE-MOUNT 5-TAP TTL DELAY LINES -- 1/2" SQ.

| TECHNITROL<br>PART NO. | PART NO.   | PART NO.   | TAP DELAYS (ns) |                 |                 |                 |                 | ALL TAPS<br>(Max.) |                 |
|------------------------|------------|------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------|-----------------|
|                        |            |            | T <sub>D1</sub> | T <sub>D2</sub> | T <sub>D3</sub> | T <sub>D4</sub> | T <sub>D5</sub> | T <sub>RO</sub>    | T <sub>FO</sub> |
| BJTTLDL025             | GBTTLDL025 | BTTTLDL25  | 5.0             | 10.0            | 15.0            | 20.0            | 25.0            | 2.0                | 2.0             |
| BJTTLDL050             | GBTTLDL050 | BTTTLDL50  | 10.0            | 20.0            | 30.0            | 40.0            | 50.0            | 2.0                | 2.0             |
| BJTTLDL075             | GBTTLDL075 | BTTTLDL75  | 15.0            | 30.0            | 45.0            | 60.0            | 75.0            | 2.0                | 2.0             |
| BJTTLDL100             | GBTTLDL100 | BTTTLDL100 | 20.0            | 40.0            | 60.0            | 80.0            | 100.0           | 2.0                | 5.0             |
| BJTTLDL125             | GBTTLDL125 | BTTTLDL125 | 25.0            | 50.0            | 75.0            | 100.0           | 125.0           | 2.0                | 6.0             |
| BJTTLDL150             | GBTTLDL150 | BTTTLDL150 | 30.0            | 60.0            | 90.0            | 120.0           | 150.0           | 2.0                | 7.0             |
| BJTTLDL200             | GBTTLDL200 | BTTTLDL200 | 40.0            | 80.0            | 120.0           | 160.0           | 200.0           | 2.0                | 8.0             |

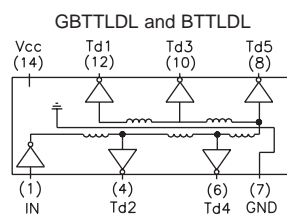
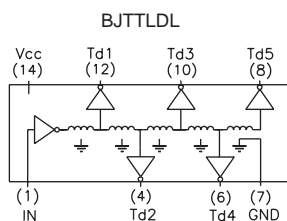
Delay Characteristics measured at  $V_{CC} = 5.0V$ ,  $25^{\circ}C$ , no load.

Delay Tolerance  $\pm 2$  ns or 5%, whichever is greater.

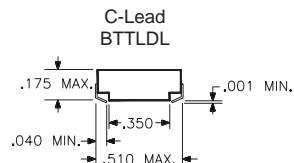
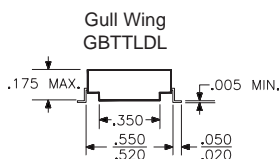
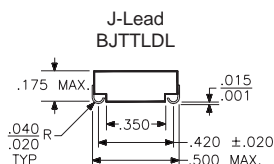
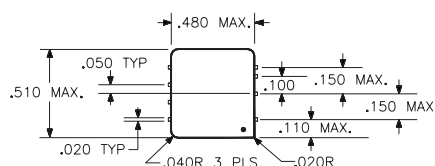
Rise time measured @ 0.8V to 2.0V levels.

For minimum input pulse width -- contact factory.

## SCHEMATICS



## MECHANICAL OUTLINES



BJ-19

## Notes

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