

# High-Performance Surface-Mount TTL Delay Lines



- 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  $70^{\circ}$ 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 | TAP DELAYS (ns)  |                  |                  |                  |                  |                 | ALL TAPS        |  |
|------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----------------|--|
| PART NO.   | T <sub>D</sub> 1 | T <sub>D</sub> 2 | T <sub>D</sub> 3 | T <sub>D</sub> 4 | T <sub>D</sub> 5 | 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             |  |

O.175" MAX HEIGHT

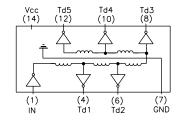
For TTL delay lines qualified to MIL-D-83532, refer to PSC information sheet entitled "QPL Active Delay Lines."

Delay Characteristics measured at  $V_{CC}$  = 5.0V, 25°C, no load. Delay Tolerance  $\pm 2$  ns or 5%, whichever is greater.

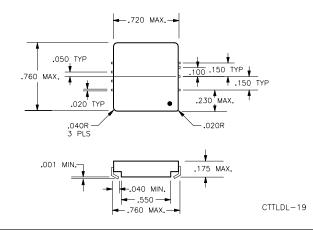
Rise time measured @ 0.8V to 2.0V levels.

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.





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

| TECHNITROL | PART NO.   | PART NO.   | TAP DELAYS (ns)  |                  |                  |                  |                  | ALL TAPS (Max.) |                 |
|------------|------------|------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----------------|
| PART NO.   |            |            | T <sub>D</sub> 1 | T <sub>D</sub> 2 | T <sub>D</sub> 3 | T <sub>D</sub> 4 | T <sub>D</sub> 5 | 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             |

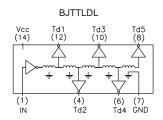
Delay Characteristics measured at  $V_{CC} = 5.0V$ , 25°C, no load.

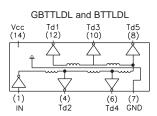
Delay Tolerance ±2 ns or 5%, whichever is greater.

Rise time measured @ 0.8V to 2.0V levels.

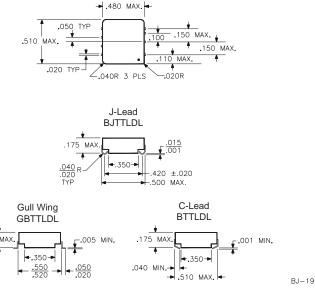
For minimum input pulse width -- contact factory.

# **SCHEMATICS**





# **MECHANICAL OUTLINES**



#### **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.