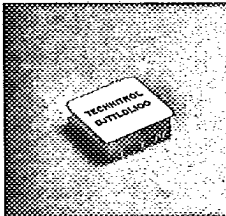


# High-Performance Surface-Mount TTL Delay Modules

**Logics Supported:**  
Schottky TTL  
FAST  
FACT

- Transfer-molded packaging—for highest reliability.
- Meets Mil-D-23859.
- Designed for leading edge timing. Trailing edge timing available.
- Compatible with Schottky TTL, FAST, FACT, TTL, ALS, AS and low-power Schottky TTL circuits.
- Pin compatible to 74/54 series 14—PIN DIP.
- 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".
- Fanout: Logic 1—20 loads; logic 0—10 loads.
- Temperature coefficient ±2ns or ±4% (whichever is greater) at maximum delay, 0 to 70°C.

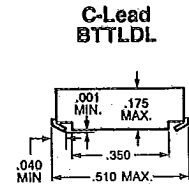
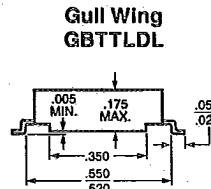
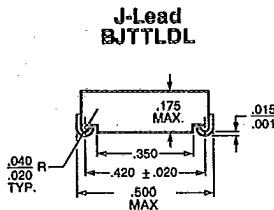
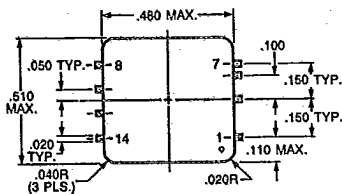
## High-Performance 5-Tap TTL Delay Modules—1/2" Sq.



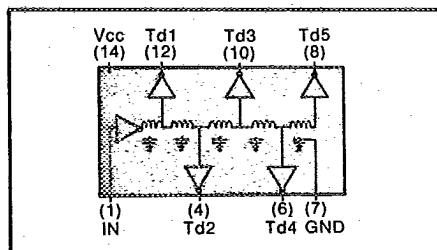
Actual Size

Part No.	Part No.	Part No.	NANOSECONDS					All Taps (Max.)	
			T <sub>p1</sub>	T <sub>p2</sub>	T <sub>p3</sub>	T <sub>p4</sub>	T <sub>p5</sub>	T <sub>R+</sub>	T <sub>R-</sub>
BJTLDL025	GBTLDL025	BTTLDL025	5.0	10.0	15.0	20.0	25.0	2.0	2.0
BJTLDL050	GBTLDL050	BTTLDL050	10.0	20.0	30.0	40.0	50.0	2.0	2.0
BJTLDL075	GBTLDL075	BTTLDL075	15.0	30.0	45.0	60.0	75.0	2.0	2.0
BJTLDL100	GBTLDL100	BTTLDL100	20.0	40.0	60.0	80.0	100.0	2.0	5.0
BJTLDL125	GBTLDL125	BTTLDL125	25.0	50.0	75.0	100.0	125.0	2.0	6.0
BJTLDL150	GBTLDL150	BTTLDL150	30.0	60.0	90.0	120.0	150.0	2.0	7.0
BJTLDL200	GBTLDL200	BTTLDL200	40.0	80.0	120.0	160.0	200.0	2.0	8.0

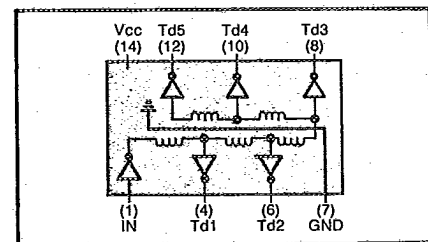
Delay Characteristics measured @ V<sub>CC</sub> = 5.0V, 25°C no load.  
Delay Tolerance ±2 ns or 5% (whichever is greater).  
Minimum input-pulse width 40% of total delay.



Schematic and Pin-Out for BJTLDL



Schematic and Pin-Out for GBTLDL and BTTLDL



Lead material: electro tin plated (alloy 42) Note: Pin numbers shown are for reference only and not necessarily marked on unit.

## Technitrol

1952 East Allegheny Avenue  
Philadelphia, PA 19134 USA  
Phone: 215-426-9105  
Fax: 215-426-2836

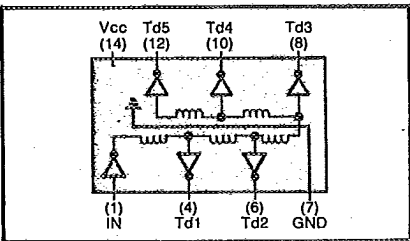
**High-Performance 5-Tap TTL Delay Modules - 1/4" Sq.**

Part No.	NANOSECONDS					All Taps (Max.)	
	T <sub>D1</sub>	T <sub>D2</sub>	T <sub>D3</sub>	T <sub>D4</sub>	T <sub>D5</sub>	T <sub>R+</sub>	T <sub>R-</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

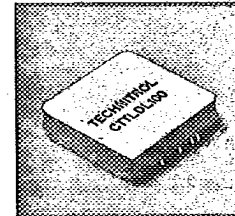
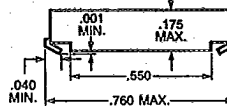
Delay Characteristics measured @ V<sub>CC</sub> = 5.0V, 25°C no load.  
 Delay Tolerance ±2 ns or 5% (whichever is greater).  
 Minimum input-pulse width 20% of total delay.

**High-Performance Surface-Mount TTL Delay Modules**

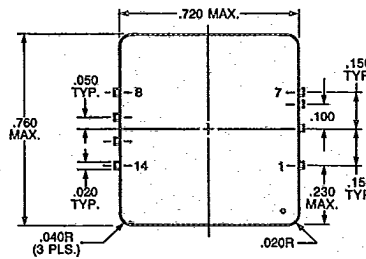
**Schematic and Pin-Out for CTTLDL**



**C-Lead CTTLDL**



Actual Size

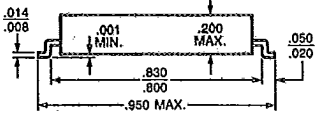


**High-Performance Hermetic 5-Tap TTL Delay Modules - 3/4" Sq.**

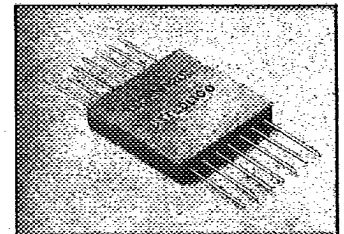
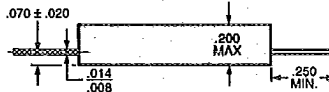
Part No.	Part No.	NANOSECONDS					All Taps (Max.)	
		T <sub>D1</sub>	T <sub>D2</sub>	T <sub>D3</sub>	T <sub>D4</sub>	T <sub>D5</sub>	T <sub>R+</sub>	T <sub>R-</sub>
GJTTLDL025	JTTLDL025	5.0	10.0	15.0	20.0	25.0	2.0	2.0
GJTTLDL050	JTTLDL050	10.0	20.0	30.0	40.0	50.0	2.0	2.0
GJTTLDL075	JTTLDL075	15.0	30.0	45.0	60.0	75.0	2.0	2.0
GJTTLDL100	JTTLDL100	20.0	40.0	60.0	80.0	100.0	2.0	5.0
GJTTLDL125	JTTLDL125	25.0	50.0	75.0	100.0	125.0	2.0	6.0
GJTTLDL150	JTTLDL150	30.0	60.0	90.0	120.0	150.0	2.0	7.0
GJTTLDL200	JTTLDL200	40.0	80.0	120.0	160.0	200.0	2.0	8.0

Delay Characteristics measured @ V<sub>CC</sub> = 5.0V, 25°C no load.  
 Delay Tolerance ±2 ns or 5% (whichever is greater).  
 Minimum input-pulse width 40% of total delay.

**Hermetic Gull Wing GJTTLDL**

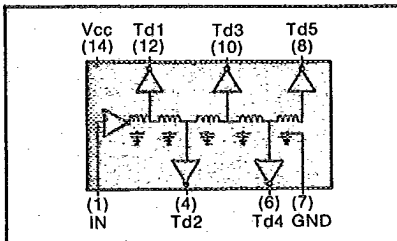
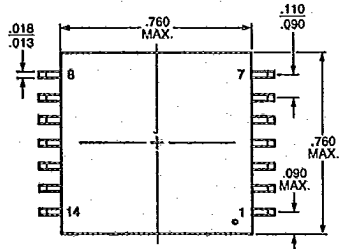


**Hermetic Flat-Pack JTTLDL**



Actual Size

**Schematic and Pin-Out for GJTTLDL and JTTLDL**



Lead material: electro tin plated (alloy 42)

Note: Pin numbers shown are for reference only and not necessarily marked on unit.

**Technitrol**

1952 East Allegheny Avenue  
 Philadelphia, PA 19134 USA  
 Phone: 215-426-9105  
 Fax: 215-426-2836