






# T3/DS3/E3/STS-1 TRANSFORMERS

## Dual SMT, Extended Temperature Range



-  Dual SMT package contains both transmit and receive transformers
-  Operating temperature of -40°C to +85°C
-  Models matched to leading transceiver ICs
-  Return loss meets requirements of G.703
-  1500Vrms isolation per UL1459 and UL1950

### Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

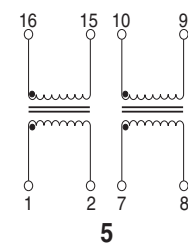
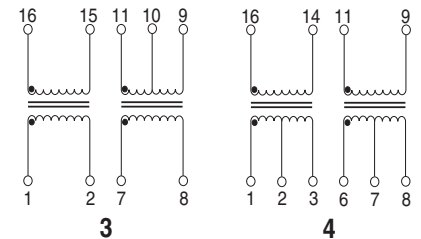
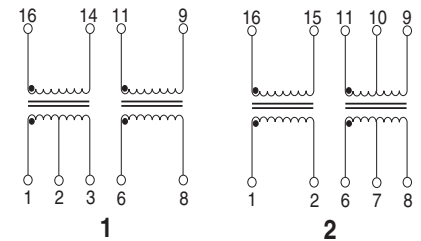
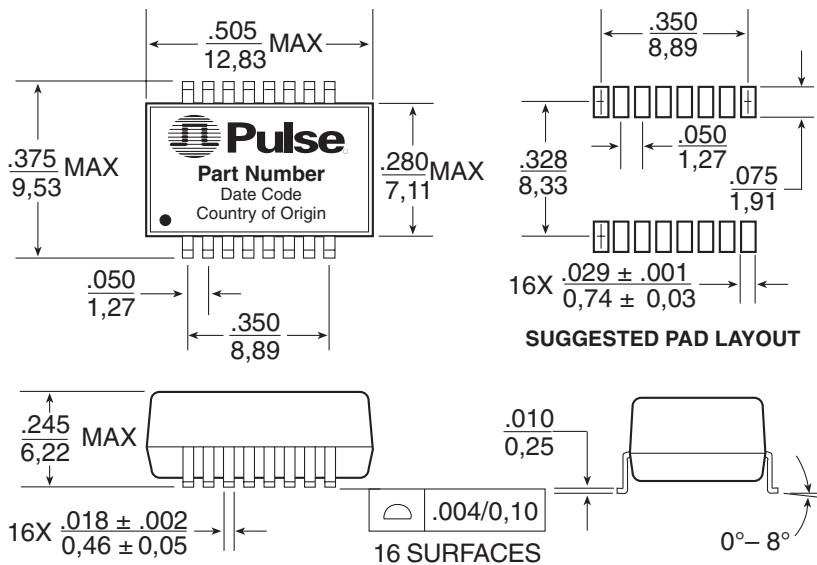
RoHS-5 Compliant Part No.	RoHS-6 Compliant Part No.	Turns Ratio (±2%)		OCL Primary @ 25°C (μH MIN)		L <sub>L</sub> (μH MAX)		C <sub>w/w</sub> (pF MAX)		Isolation Voltage (V <sub>rms</sub> MIN)	Package/Schematic	Primary Pins	
		TX	RX	TX	RX	TX	RX	TX	RX			TX	RX
T3020	T3020NL	1:2CT	1:1	40	100	.120	.120	10	10	1500	BH/1	16-14	6-8
T3021	T3021NL	1:2CT	1:2CT	40	40	.100	.100	10	10	1500	BH/4	16-14	11-9
T3023	T3023NL	1:1	1:1	40	40	.110	.110	10	10	1500	BH/5	1-2	7-8
TX3025	TX3025NL	1CT:1CT	1:1	100	100	.120	.120	10	10	1500	BH/2	6-8	16-15
TX3026	TX3026NL	1:2CT	1:1	100	100	.120	.120	10	10	1500	BH/3	7-8	16-15

NOTE: Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (ex: T3020T and T3020NLT).

## Mechanicals

## Schematics

**BH**



Weight .....1.0 grams  
Tape & Reel ..... .600/reel  
Tube ..... .40/tube

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0,25}$

# T3/DS3/E3/STS-1 TRANSFORMERS

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### Application Notes

1. The transformers have been developed for use as transmit and receive transformers in T3 or DS3 links, using bit rates of 44.736Mbps and B3ZS coding on coaxial cable. The characteristics allow compliance with the pulse templates of CCITT G.703 as well as ATT T.A.34. The transformers are also suitable for the E3 interface at 34.368Mbps with HDB3 coding or STS-1 applications, at 51.84Mbps according to Bellcore TA-NWT-000253.
2. Bandwidth specifications are typical in a 75Ω system. Return loss meets the requirements of G.703. Materials used in the products are UL94-V0 recognized. Products meet the requirements of IEC 695-2-2 (Needle Flame Test).
3. For those applications requiring a 1:1 turns ratio on the transmit side, use only one half of the secondary (2CT) winding.
4. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. TX3026T).
5. For other T3/DS3/E3/STS-1 Transformers, please see data sheets **T606**, **T619**, **T672**, **T663** and **T668**.
6. **Transformer Selection Guide** - Please contact Pulse Applications Engineering or see our website for the latest Pulse Transformer Selection Guide.

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