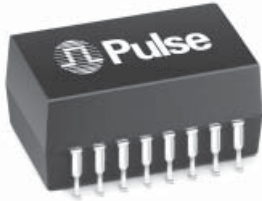


# T1/E1/CEPT/ISDN-PRI TRANSFORMERS

## Reinforced Insulation, 3 kVrms, SMT



- RoHS-6 peak reflow temperature rating: 245°C
- Dual surface mount package contains both transmit and receive transformers
- Models matched to leading transceiver ICs
- 3 kV reinforced insulation barrier approved to UL

**3 kV Reinforced!**

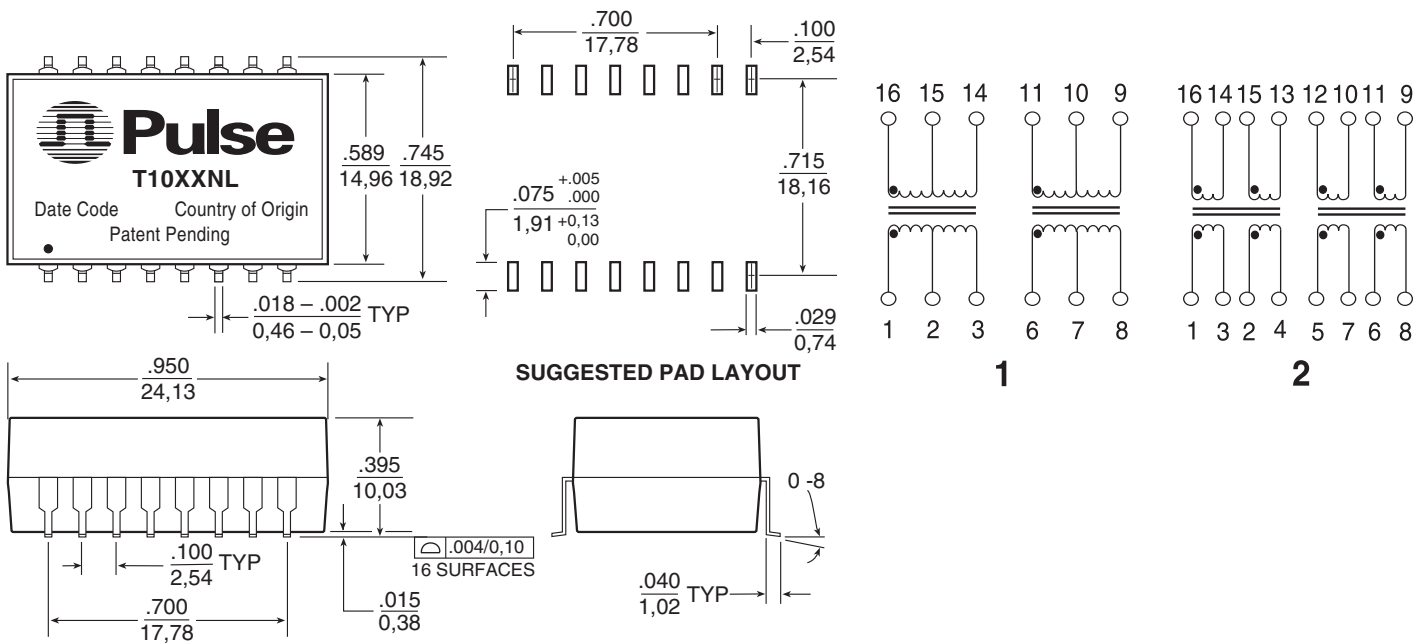
### Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

RoHS-6 Compliant Part Number	Turns Ratio (Pri:Sec ±2%)	OCL @ 25°C (mH MIN)	C <sub>w/w</sub> (pF MAX)	DCR Pri (Ω MAX)	DCR Sec (Ω MAX)	Package/ Schematic	Primary Pins
T1030NL	1CT:1CT & 1CT:1CT	1.20 & 1.20	15 & 15	1.00 & 1.00	1.00 & 1w.00	ZIN / 1	1-3, 6-8
T1035NL	1CS:1CS & 1CS:1.36CS	1.20 & 1.20	15 & 15	1.00 & 1.00	1.00 & 1.20	ZIN / 2	1-4, 5-8
T1038NL	1CT:1CT & 1CT:1.36CT	1.20 & 1.20	15 & 15	1.00 & 1.00	0.90 & 1.20	ZIN / 1	1-3, 6-8

### Mechanical

### Schematics

**ZIN**



Weight ..... .8.1 grams  
 Tube ..... 20/tube  
 Tray ..... 250/tray

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$   
 Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0,26}$

# T1/E1/CEPT/ISDN-PRI TRANSFORMERS

## Reinforced Insulation, 3 kVrms, SMT



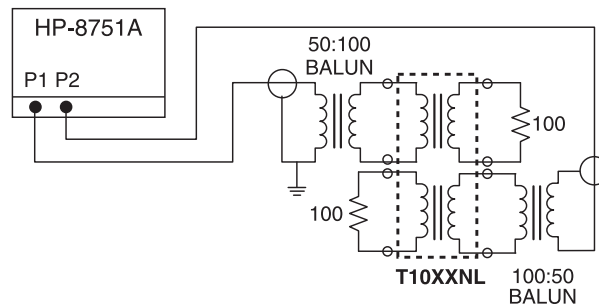
## Application Notes

### 1. Safety Standards Recognition

All transformers listed on this data sheet are UL1459, UL1950, CS950 approved per Underwriters Laboratories – file E133523, Reinforced Insulation.

### 2. Crosstalk Attenuation

The dual packages contain transmit and receive transformers side by side, sufficient crosstalk attenuation is achieved by the inherent characteristics of the toroid cores as well as by their proper positioning. The crosstalk attenuation is typically 55 dB or better from 100 kHz to 10 MHz. This result was established with the test circuit shown here:



### 3. Common Mode Chokes

The “high-frequency” 4-line common mode chokes, in the chart below, provide an effective means of compliance with national and international regulations on EMI. They are designed to be used in conjunction with Pulse’s T1/CEPT transformers. Crosstalk is typically – 70 dB at 1 MHz and – 55 dB at 10 MHz.

## High Frequency Common Mode Chokes for Telecom Applications (4-Lines)

### Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

Pulse Part Number	Turns Ratio (±5%)	OCL (μH MIN)	Cw/w (pF MAX)	L <sub>L</sub> (μH MAX)	DCR (Ω MAX)	Isolation (Vrms MIN)	Package
PE-65554NL	1:1:1:1	24.0	15	.20	0.30	500	Through Hole
PE-65555NL	1:1:1:1	8.0	10	.20	0.25	500	Through Hole
PE-65854NL	1:1:1:1	47.0	16	.20	0.30	500	Surface Mount
PE-65857NL	1:1:1:1	24.0	15	.23	0.30	500	Surface Mount

**Note:** Additional common mode chokes to improve EMI performance are available. See the “Common Mode Choke Catalog,” for mechanicals and schematics on the data sheet menu on the pulse web site: <http://www.pulseeng.com/index.php?848>, under “Pulse Catalog and General Catalogs.”

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