

Features

- For use with Alcatel's MTK-20140 ADSL chipset
- Excellent Total Harmonic Distortion (THD) Performance
- Both SMT and Thru-Hole package version
- Small size
- Operating temperature -40 °C to +85 °C
- Designed to meet UL1950 and EN60950 supplementary insulation requirements for operating voltages up to 250 Vrms
- RoHS compliant*

Applications

- ADSL - Alcatel MTK20140

SM540-1L & PT541-1L ADSL Line Transformers

Electrical Specifications @ 25 °C

Turns Ratio (1-4):(10-7) (line to chip)
 SM540-1L 1:1 ±2 %
 PT541-1L 2:1 ±2 %

OCL @ 10 kHz, 0.1 V
 (1-4) with (2-3) shorted
 SM540-1L 480 µH ±10 %
 PT541-1L 410 µH ±10 %

Leakage Inductance @ 300 kHz 0.1 V
 (1-4) with (2-3), (7-10), (8-9) shorted
 SM540-1L 10.0 µH max.
 PT541-1L 6.5 µH max.

Longitudinal Balance
 30 kHz to 1.1 MHz -40 dB min.

Insertion Loss
 @ 100 kHz and 1.1 MHz <1.0 dB

Isolation Voltage 1500 Vrms max.

DC Resistance
 (1-4) with (2-3) shorted
 SM540-1L 1.0 Ω max.
 PT541-1L 0.6 Ω max.

THD Linearity
 SM540-1L @ 10 kHz (min.)
 -72 dB typ.
 PT541-1L @ 20 kHz (min.)
 -72 dB typ.

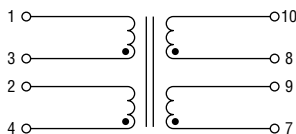
Application
 SM540-1L CPE
 PT541-1L CO

Packaging Specifications

SM540-1EL* 200 pcs./reel
 PT541-1L 60 pcs./tray

*"E" suffix before "L" in part number designates tape & reel packaging, e.g. SM540-1EL.

Electrical Schematic



How To Order

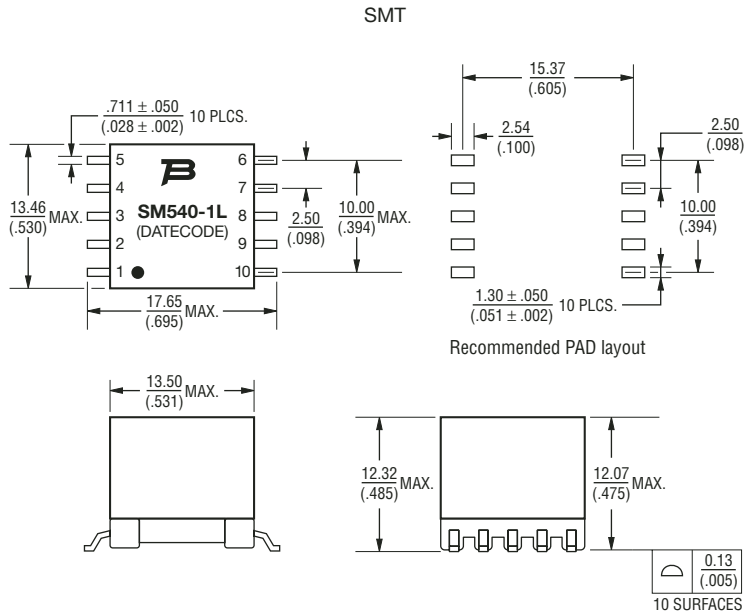
SM540-1E or PT541-1 L

Model _____

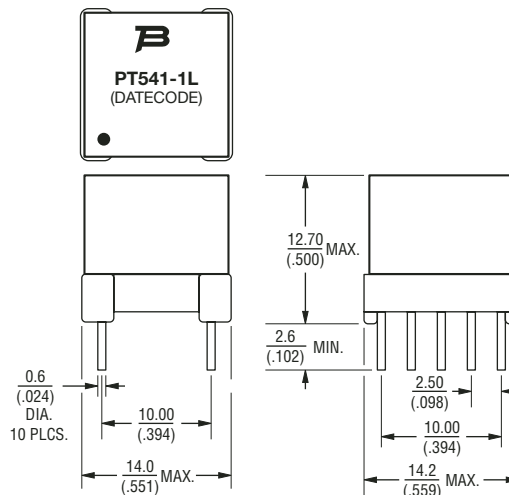
Termination _____

L = Tin only (lead free)

Product Dimensions



THT



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$ TOLERANCE ± $\frac{0.25}{(.010)}$

REV. 09/08

*RoHS Directive 2002/95/EC Jan 27 2003 including Annex. Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications