

## 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

## Applications

- ADSL - Alcatel MTK20140

# SM540-1 & PT541-1 ADSL Line Transformers

### Electrical Specifications @ 25 °C

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

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

Leakage Inductance @ 300 kHz 0.1 V  
 (1-4) with (2-3), (7-10), (8-9) shorted  
 SM540-1 .....10.0 µH max.  
 PT541-1 .....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  
 SM540-1 .....1.0 Ω max.  
 PT541-1 .....0.6 Ω max.

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

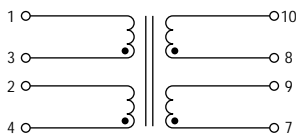
Application  
 SM540-1 .....CPE  
 PT541-1 .....CO

### Packaging Specifications

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

\*"E" suffix at end of part number designates tape & reel packaging, e.g. SM540-1E.

### Electrical Schematic



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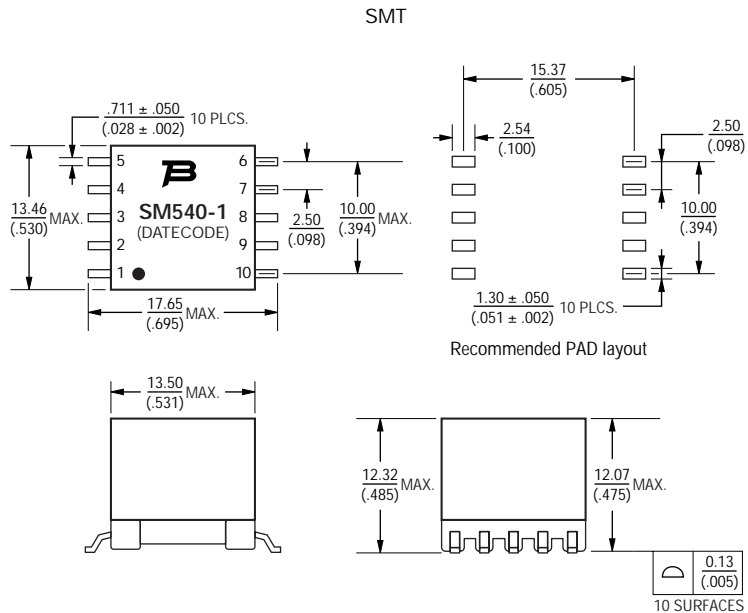
Asia-Pacific: TEL +886-2 25624117  
 FAX +886-2 25624116

Europe: TEL +41-41 7685555  
 FAX +41-41 7685510

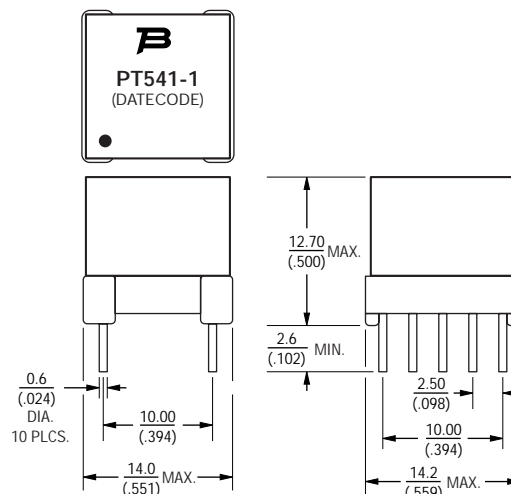
N. America: TEL +1-909 781-5500  
 FAX +1-909 781-5700

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### Product Dimensions



### THT



DIMENSIONS ARE:  $\frac{\text{MM}}{\text{(INCHES)}}$

TOLERANCE:  $\pm \frac{0.25}{(0.10)}$