

## 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
- Lead free version available (see How to Order)
- Lead free versions are RoHS compliant\*

## 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.

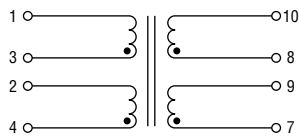
Application  
 SM540-1 .....CPE  
 PT541-1 .....CO

### Packaging Specifications

SM540-1E\* .....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

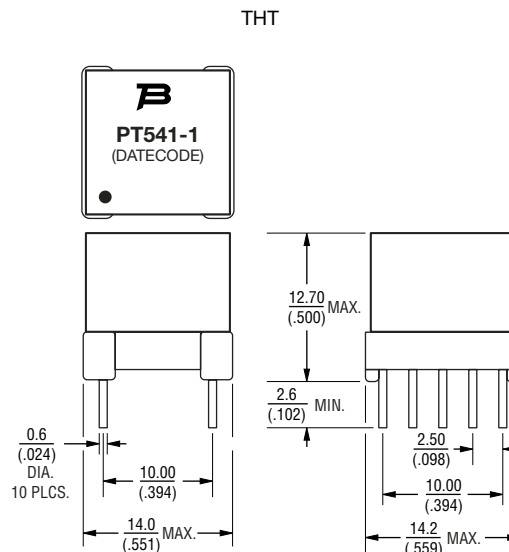
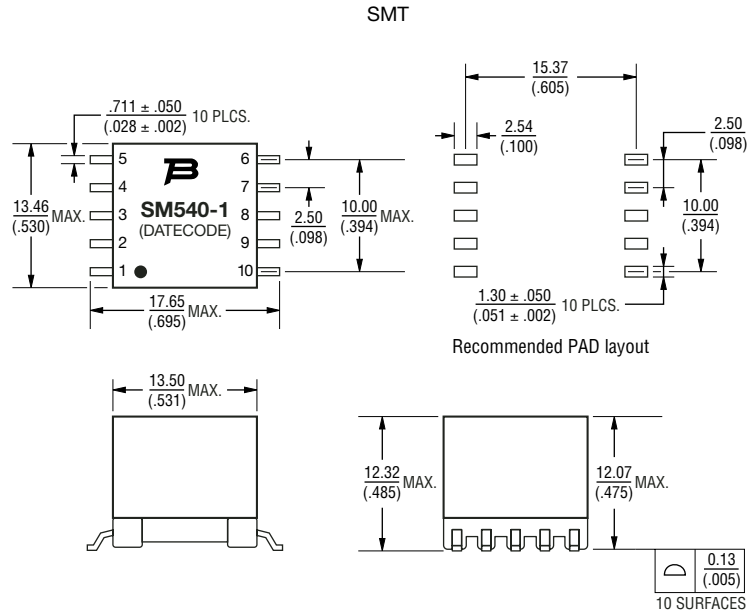


### How to Order

**SM540-1E or PT541-1**

Model \_\_\_\_\_  
 Termination \_\_\_\_\_  
 Blank = Tin-lead  
 L = Tin only (lead free)

### Product Dimensions



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

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