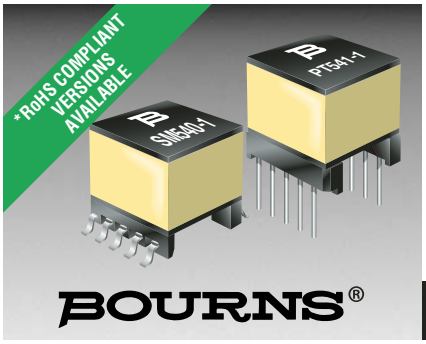


Features

- 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

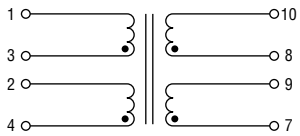
Turns Ratio (1-4):(10-7) (line to chip)
SM540-1 .....1:1 ±2 %
PT541-1 .....2:1 ±2 %
OCL @ 10 kHz, 0.1 V
(1-4) with (2-3) shorted
SM540-1.....480 µH ±10 %
PT541-1 .....410 µH ±10 %
Leakage Inductance @ 300 kHz 0.1 V
(1-4) with (2-3), (7-10), (8-9) shorted
SM540-1 .....10.0 µH max.
PT541-1 .....6.5 µH 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



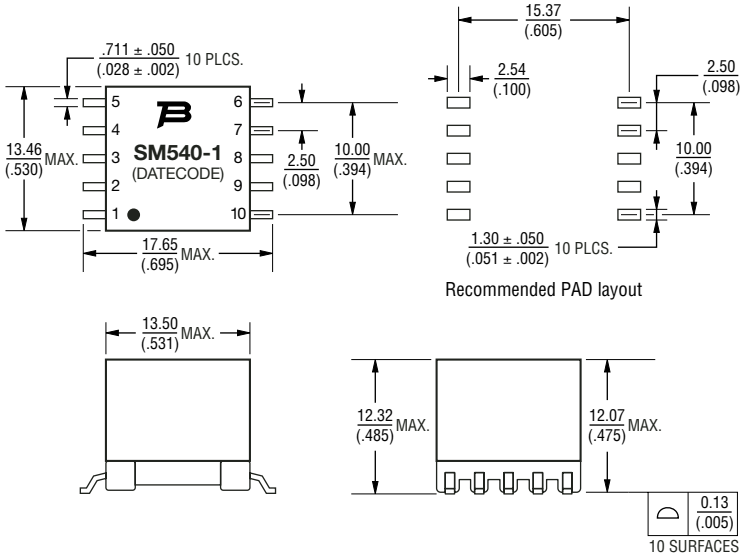
How to Order

SM540-1E or PT541-1

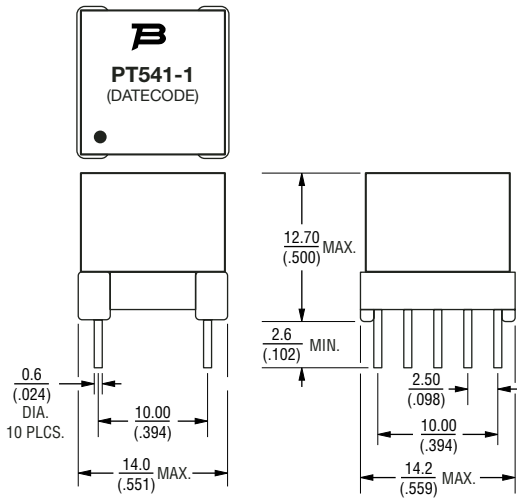
Model
Termination
Blank = Tin-lead
L = Tin only (lead free)

Product Dimensions

SMT



THT



DIMENSIONS ARE: MM (INCHES)

TOLERANCE: ± 0.25 (.010)

03/05

*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.