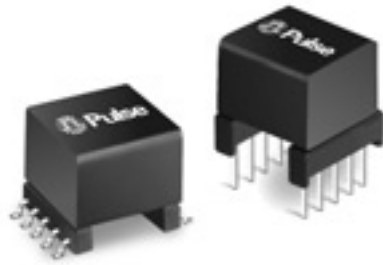






# HDSL LINE TRANSFORMERS



-  For use with Conexant chipsets
-  Excellent THD performance
-  Small footprint
-  Designed to meet UL 1950 supplementary insulation requirements for working voltage up to 250 Vrms

## Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

Part Number	Mount.	Matched to Conexant's Chipset No.	Application	Turns Ratio Line - Chip (±2%)	Inductance - Line Side @ 10 kHz, 100 mV (1-5) with (2-4) shorted	Leakage Inductance - Line Side @ 100 kHz (1-5) with (2-4) and (7-9) shorted	DC Resistance	
							Line Side (1-4) = (2-5)	Chip Side (7-9)
B1017	THT	BT8921/BT8970	784 Kpbs	2CS:1	3.0 mH ±6%	15 µH MAX @ 0.02 Vrms	≤ 1.25 Ω	≤ 1.00 Ω
B1059 <sup>1</sup>	SMT	BT8921/BT8970	784 Kpbs	2CS:1	3.0 mH ±10%	15 µH MAX @ 0.02 Vrms	≤ 1.25 Ω	≤ 1.00 Ω
B1018	THT	BT8921/BT8970	1168 Kpbs	2CS:1CT	2.0 mH ±10%	13 µH MAX @ 0.10 Vrms	≤ 1.25 Ω	≤ 1.00 Ω
B1028 <sup>1</sup>	SMT	BT8921/BT8970	1168 Kpbs	2CS:1CT	2.0 mH ±6%	11 µH MAX @ 0.10 Vrms	≤ 1.20 Ω	≤ 1.00 Ω
B1020A	THT	RS8973	272 to 2320 Kpbs	2CS:1	2.0 mH ±6%	6.5 µH MAX @ 0.02 Vrms	≤ 2.00 Ω	≤ 1.10 Ω
B1040A <sup>1</sup>	SMT	RS8973	272 to 2320 Kpbs	2CS:1	2.0 mH ±10%	6.5 µH MAX @ 0.02 Vrms	≤ 1.60 Ω	≤ 1.05 Ω
B1075	THT	RS8973	272 to 2320 Kpbs	2CS:1CT	2.0 mH ±6%	8 µH MAX @ 0.02 Vrms	≤ 2.00 Ω	≤ 0.70 Ω
B1077 <sup>1</sup>	SMT	RS8973	272 to 2320 Kpbs	2CS:1CT	2.0 mH ±8%	8 µH MAX @ 0.02 Vrms	≤ 2.00 Ω	≤ 0.70 Ω

## Additional Electrical Specifications

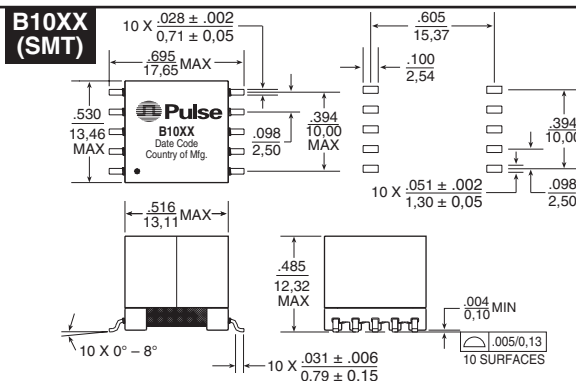
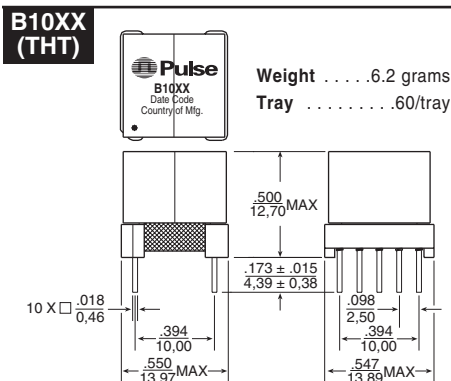
Part Number	Longitudinal Balance (dB)	THD @ 135 Ω (dB)	Insertion Loss @ 135 Ω (dB)	Return Loss @ 135 Ω (dB)	Isolation Voltage (Vrms @ 60 sec)
B1017	≤ -53 (40 kHz to 200 kHz)	≤ -70 (10 kHz, 5.0 Vrms)	≤ 0.40 (26 kHz to 200 kHz)	≥ 19 (40 kHz to 200 kHz)	1500
B1059	≤ -53 (40 kHz to 200 kHz)	≤ -70 (10 kHz, 5.0 Vrms)	≤ 0.40 (26 kHz to 200 kHz)	≥ 19 (40 kHz to 200 kHz)	1500
B1018	≤ -53 (30 kHz to 300 kHz)	≤ -70 (40 kHz, 1.85 Vrms)	≤ 0.50 (40 kHz)	≥ 16 (40 kHz to 300 kHz)	1500
B1028	≤ -50 (40 kHz to 300 kHz)	≤ -70 (20 kHz, 4.5 Vrms)	(Data not available)	≥ 16.5 (40 kHz to 300 kHz)	1500
B1020A	≤ -50 (30 kHz to 300 kHz)	≤ -70 (10 kHz, 5.0 Vrms)	≤ 0.65 (30 kHz to 580 kHz)	≥ 16 (40 kHz to 300 kHz)	1500
B1040A	≤ -50 (30 kHz to 420 kHz)	≤ -70 (10 kHz, 5.0 Vrms)	≤ 0.60 (30 kHz to 580 kHz)	≥ 16 (40 kHz to 300 kHz)	1500
B1075	≤ -50 (30 kHz to 300 kHz)	≤ -70 (10 kHz, 5.0 Vrms)	≤ 0.50 (30 kHz to 580 kHz)	≥ 16 (40 kHz to 300 kHz)	1500
B1077	≤ -50 (30 kHz to 300 kHz)	≤ -70 (10 kHz, 5.0 Vrms)	≤ 0.60 (30 kHz to 580 kHz)	≥ 16 (40 kHz to 300 kHz)	1500

<sup>1</sup>Transformers are shipped in trays unless Tape & Reel packaging is specified by adding the suffix "T" to the part number (i.e. B1028T)

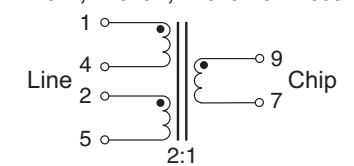
<sup>2</sup>DCR on the chip side of part numbers B1075 and B1077 is given for (7-8) = (8-9)

## Mechanicals

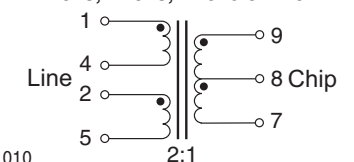
## Schematics



B1017, B1020A, B1040A & B1059



B1018, B1028, B1075 & B1077



## For More Information :

Dimensions:  $\frac{\text{Inches}}{\text{mm}}$

Unless otherwise specified, all tolerances are  $\pm \frac{.010}{.025}$

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