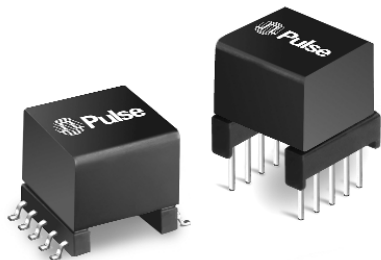





# HDSL LINE TRANSFORMERS

## For Conexant Chipsets



-  Excellent THD performance
-  Small footprint
-  Designed to meet UL1950 supplementary insulation requirements for working voltage up to 250Vrms

### 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 @ 10kHz, 100mV (1-5) with (2-4) shorted	Leakage Inductance - Line Side @ 100kHz (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	784Kpbs	2CS:1	3.0mH ±6%	15µH MAX @ 0.02Vrms	≤ 1.25Ω	≤ 1.00Ω
B1018	THT	BT8921/BT8970	1168Kpbs	2CS:1CT	2.0mH ±10%	13µH MAX @ 0.10Vrms	≤ 1.25Ω	≤ 1.00Ω
B1028 <sup>1</sup>	SMT	BT8921/BT8970	1168Kpbs	2CS:1CT	2.0mH ±6%	11µH MAX @ 0.10Vrms	≤ 1.20Ω	≤ 1.00Ω
B1020A	THT	RS8973	272 to 2320Kpbs	2CS:1	2.0mH ±6%	6.5µH MAX @ 0.02Vrms	≤ 2.00Ω	≤ 1.10Ω
B1040A <sup>1</sup>	SMT	RS8973	272 to 2320Kpbs	2CS:1	2.0mH ±10%	6.5µH MAX @ 0.02Vrms	≤ 1.60Ω	≤ 1.05Ω
B1075	THT	RS8973	272 to 2320Kpbs	2CS:1CT	2.0mH ±6%	8µH MAX @ 0.02Vrms	≤ 2.00Ω	≤ 0.70Ω

### Additional Electrical Specifications

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

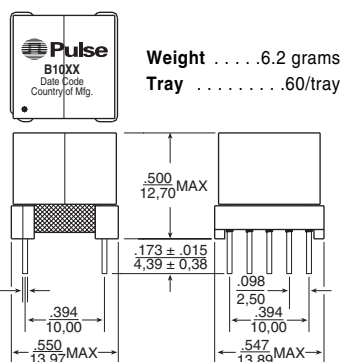
<sup>1</sup>Transformers are shipped in trays unless Tape & Reel packaging is specified by adding the suffix "T" to the part number (i.e. B1028T)

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

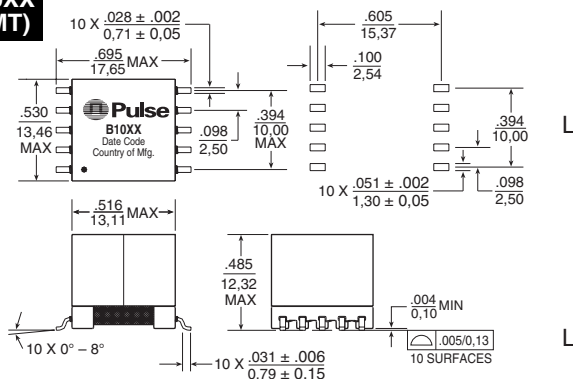
### Mechanicals

### Schematics

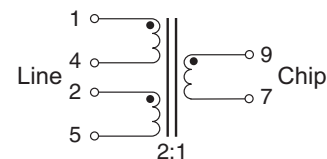
#### B10XX (THT)



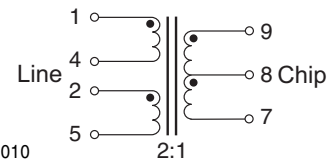
#### B10XX (SMT)



#### B1017, B1020A, B1040A



#### B1018, B1028, B1075



Dimensions:  $\frac{\text{Inches}}{\text{mm}}$  Unless otherwise specified, all tolerances are  $\pm \frac{.010}{0.25}$

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