

HDSL Coupling Transformers



FEATURES:

- Supports Industry Standard HDSL/HDSL2 Transceivers
- Operating Temperature Range of -40 C to 85°C
- Excellent Total Harmonic Distortion Characteristics
- Meets Standard Dielectric Withstanding Voltage Requirements
- Surface Mountable Configurations Available*
- Designs Support Line Rates up to 2 Mb/s Applications
- Conforms to ANSI, ITU and ETSI Standards Requirements

OPTIONS:

- Custom Designs Available
- SMD Available

STANDARD SPECIFICATIONS @ 25°

Part Number*	LineRate (Kb/s)	Turns Ratio** (Line:Chip)	OCL (Line:Chip)	R _L @Midband (dB)	I _L (dB)	Longitudinal Balance (dB)	THD (dB)	Pkg.	Cir.
AHDL -105 ¹	784	1.8CT:1CT	2.8 mH	≥ 20 40 - 200 KHz	< 1.0 40 KHz	≥ 50 5 - 196 KHz	≤ -75	23x11	1
AHDL -101 ²	784	1:1:1CT	3.0 mH	≥ 20 40 - 200 KHz	< 1.0 40 KHz	≥ 55 40 - 320 KHz	≤ -70	23x11	2
AHDL -104 ³	1168	1:1:2CT	2.0 mH	≥ 16.5 40 - 320 KHz	< 1.0 40 KHz	≥ 55 40 - 320 KHz	≤ -75	23x11	3
AHDL -103 ⁴	784	1:1:2CT	3.0 mH	≥ 20 40 - 200 KHz	< 1.0 40 KHz	≥ 55 5 - 196 KHz	≤ -75	23x11	3
AHDL -106 ⁵	1168	1:1:1CT	2.0 mH	≥ 16.5 40 - 320 KHz	< 1.0 40 KHz	≥ 55 40 - 320 KHz	≤ -70	23x11	2
AHDL -107 ⁶	1168	1.8CT:1CT	2.06 mH	≥ 16.5 40 - 320 KHz	< 1.0 40 KHz	≥ 50 40 - 320 KHz	≤ -70	23x11	4
AHDL -102 ⁷	1168	1:1:1CT	2.0 mH	≥ 12 40 - 320 KHz	< 1.0 40 KHz	≥ 55 40 - 320 KHz	≤ -70	23x11	3
AHDL -108 ⁵	1552	2.3:1	2.0 mH	≥ 18 40 - 320 KHz	< 1.0 40 KHz	≥ 65 40 - 320 KHz	≤ -70	23x11	2
AHDL -109 ⁵	1168	3:1	2.0 mH	≥ 12 40 - 320 KHz	< 1.0 40 KHz	≥ 65 40 - 320 KHz	≤ -70	23x11	2
AHDL -110 ⁸	272	1:1:1CT	8.0 mH	≥ 15 9 - 40 KHz	< 1.0 40 KHz	> 65 40 - 320 KHz	≤ -70	23x11	3
AHDL -111 ⁸	416	1:1:1CT	5.0 mH	≥ 16.5 20 - 80 KHz	< 1.0 40 KHz	> 65 40 - 320 KHz	≤ -70	23x11	3
AHDL -112 ⁸	528	1:1:1CT	3.5 mH	≥ 16.5 33 - 200 KHz	< 1.0 40 KHz	> 65 40 - 320 KHz	≤ -70	23x11	3
AHDL-201 ¹⁰	1168	4:1	2.0 mH	>15.5 40 - 500 KHz	<1.0 40 KHz	>50 40 - 500 KHz	≤ 80	EP13	2
AHDL -202 ²	784	1:1:1	3.0 mH	≥ 16.5 40 - 320 KHz	< 1.0 40 KHz	≥ 55 40 - 320 KHz	≤ -70	EP13	2
AHDL -203 ⁴	1168	1:1:1	2.0 mH	≥ 16.5 40 - 320 KHz	< 1.0 40 KHz	≥ 55 40 - 320 KHz	≤ -70	EP13	2
AHDL -204 ⁵	1168	2.3:1	2.0 mH	≥ 16.5 40 - 320 KHz	< 1.0 40 KHz	≥ 55 40 - 320 KHz	≤ -70	EP13	2
AHDL -205 ⁶	784	1.8:1CT	3.0 mH	≥ 16.5 40 - 320 KHz	< 1.0 40 KHz	≥ 50 40 - 320 KHz	≤ -70	EP13	2
AHDL -206 ⁷	2320	1:1:1	1.0 mH	≥ 16.5 80 - 580 KHz	< 1.0 40 KHz	≥ 55 40 - 320 KHz	≤ -70	EP13	2
AHDL -207 ⁵	1552	2.3:1CT	1.6 mH	≥ 16.5 20 - 560 KHz	< 1.0 40 KHz	≥ 55 20 - 320 KHz	≤ -70	EP13	2



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Test Conditions:

1. OCL: 100 mV @ 10 KHz with appropriate IDC
2. THD: 6 Vp-p @ 5 KHz with 135 Ω

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- Longitudinal Balance: frequency range specified with 135 Ω
4. DWV: 1,500 VRMS, greater voltage isolation available

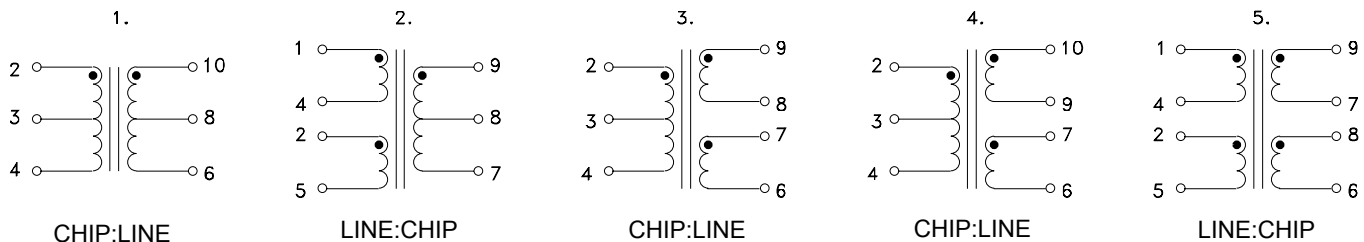
Notes:

* P/Ns with "S" as suffix are configured for surface mountable applications meeting standard industry reflow criteria

**"CT" indicates a center-tapped winding, otherwise readings are intended to be across entire winding segment

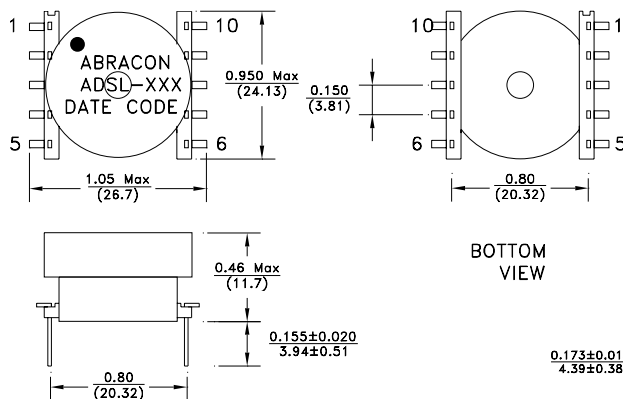
1. Supports Level One SK70704/20/21 with DCR $\leq 3.2/6.0 \Omega$ IDC @ 75 mA
2. Supports Conexant BT8921/70 with DCR $\leq 2.0/2.0 \Omega$, IDC @ 70 mA
3. Supports Conexant BT8952 with DCR $\leq 2.2/4.4 \Omega$, IDC @ 160 mA
4. Supports Conexant BT8952 with DCR $\leq 2.2/4.4 \Omega$, IDC @ 160 mA
5. Supports Level One SK70740/70741/70742 with DCR $\leq 2.2/2.2 \Omega$, IDC @ 70mA
6. Supports Level One SK70704 with DCR $\leq 3.2/2.0 \Omega$, IDC @ 75 mA, assumes pins 7-9 shorted externally
7. Supports Broadcom BCM6010 and Conexant BT8921/70, assumes pins 2 - 3, 7 - 9 are tied externally
8. Supports Conexant BT8960
9. Supports Conexant BT8970/RS8973
10. Supports M/SHDSL Globespan chip set

CIRCUITS



PACKAGES

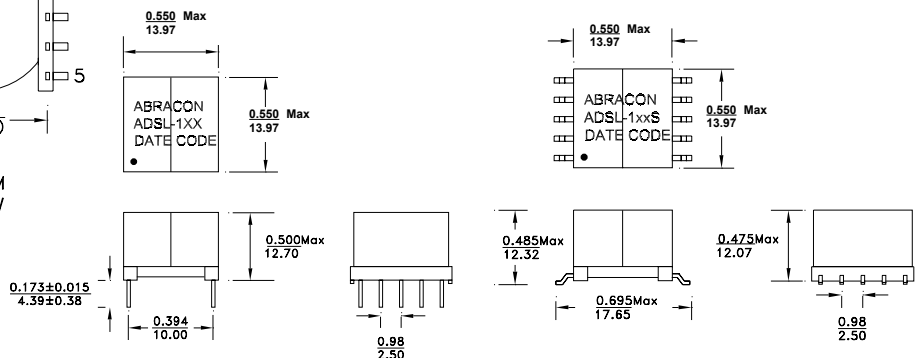
23 x 11



BOTTOM VIEW

Thru-Hole

SMD



Dimmension : Inch/mm