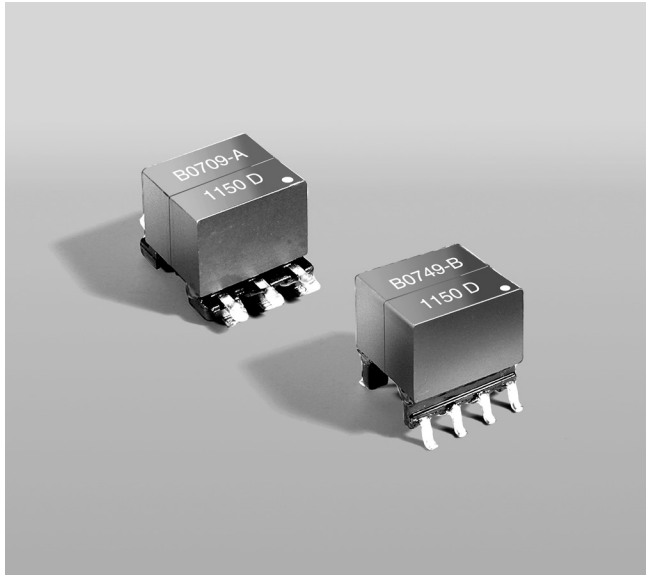


# VDSL Transformers

For Ikanos  
SmartLeap



This product is not RoHS-compliant. Contact Coilcraft for current status or possible alternatives.

These surface mount transformers are designed specifically for use with the Ikanos SmartLeap chipset series for high-speed telecom applications.

They are available in 6-pin and 8-pin versions for both ANSI and ETSI standards. They all feature 60 dB minimum longitudinal balance, -75 dB maximum harmonic distortion and 1500V winding-to-winding isolation.

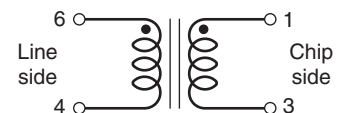
Coilcraft can also custom engineer transformers to meet your specific requirements. For free evaluation samples, contact Coilcraft or visit [www.coilcraft.com](http://www.coilcraft.com).

Part number	Standard	Number of pins	Inductance <sup>1</sup> ±10% (µH)	DCR max (Ohms)		Leakage inductance <sup>2</sup> max (µH)	Turns ratio line:chip	Capacitance <sup>3</sup> max (pF)	Stray capacitance <sup>4</sup> max (pF)
				pri	sec				
B0233-A	ANSI	6	200	1.00	0.184	1.00	3:1	10.0	25.0
C0971-A	ANSI	8	200	0.913	0.154	0.70	3:1	25.0	25.0
B0709-B	ETSI	6	200	0.913	0.113	0.70	7:2	25.0	15.0
B0749-B	ETSI	8	200	0.913	0.113	0.70	7:2	25.0	15.0

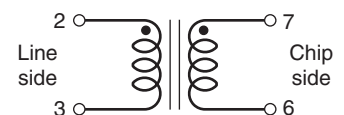
1. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc.
  2. Leakage inductance tested across the primary with the secondary shorted.
  3. Capacitance tested between windings with 0.1 Vrms applied at 80 KHz.
  4. Stray capacitance tested across the primary with 0.1 Vrms applied at 2.5 MHz.
  5. Operating temperature range -40°C to +85°C.
  6. Electrical specifications at 25°C
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

## Schematics

B0233-A, B0709-B



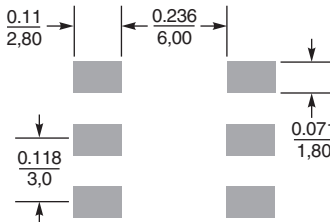
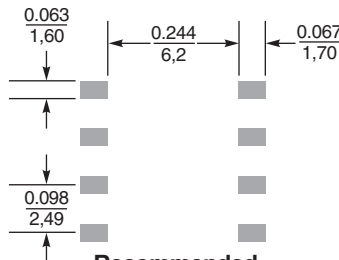
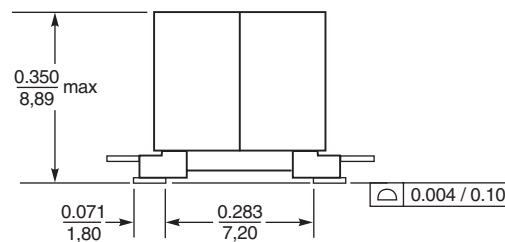
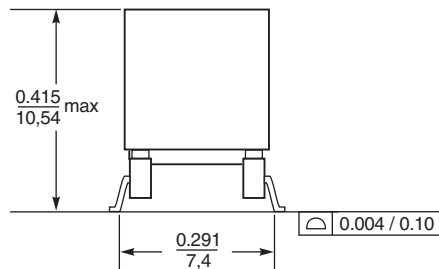
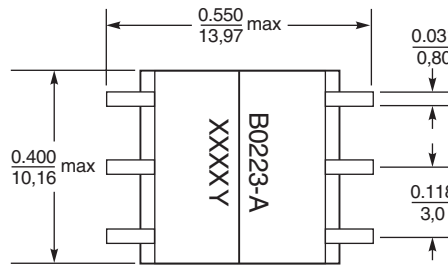
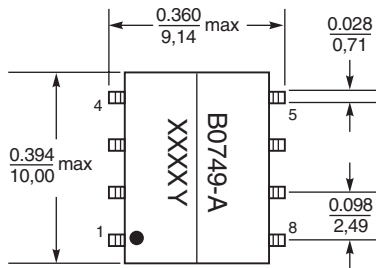
C0971-A, B0749-B



# VDSL Transformers for Ikanos SmartLeap

**B0749-B, C0971-A**

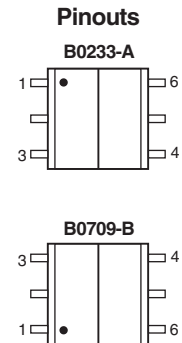
**B0233-A, B0709-B**



**Recommended Land Pattern**

**Recommended Land Pattern**

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$



**Packaging** 300 per 13" reel Plastic tape: 32 mm wide, 0.42 mm thick, 32 mm pocket spacing, 10.7 mm pocket depth

**Packaging** 450 per 13" reel Plastic tape: 24 mm wide, 0.45 mm thick, 16 mm pocket spacing, 9.0 mm pocket depth

**Core material** Ferrite

**Terminations** Non-RoHS tin-lead over nickel over phos bronze.

**Weight** 1.8 – 2.0 g

**Ambient temperature** -40°C to +85°C

**Storage temperature** Component: -40°C to +85°C. Tape and reel packaging: -40°C to +80°C

**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)** 38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf