



xDSL splitter transformers

EP 7 core inductors

Series/Type: **B82803**

Date: October 2012



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Applications

- Splitter applications for ADSL and VDSL
- Telecom applications

Features

- Very good inductance symmetry
- Space optimized
- RoHS-compatible
- Excellent THD behaviour
- Low DC-resistance

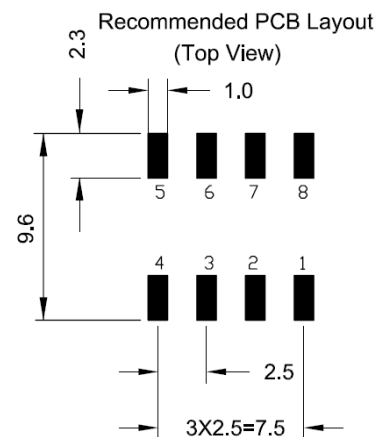
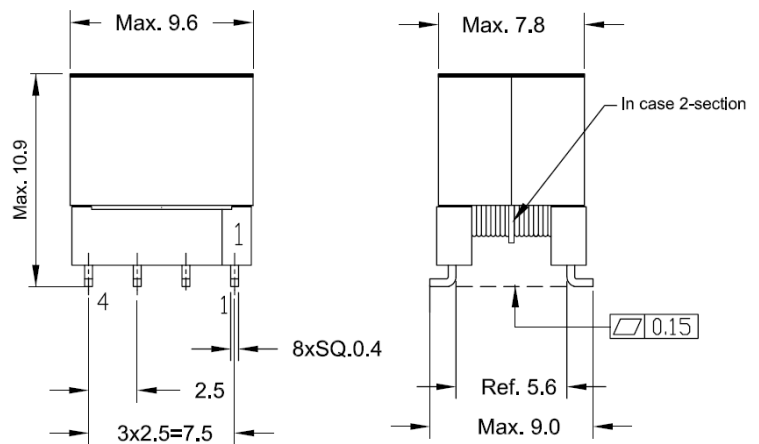
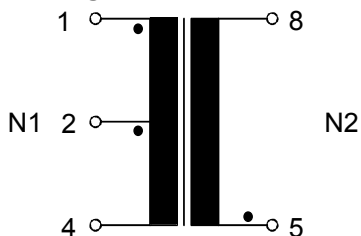
Options

- Other inductance values on request
- Through whole terminations on request

Delivery mode and packing unit

- 24-mm blister tape
- Packing unit: 320 pcs.

Pinning



Dimensions in mm

Technical data and measuring conditions

Main inductance L (1-8)	10 kHz, 100 mV, short 4-5
Main inductance tolerance	±10%
Turns ratio N1 : N2	1 : 1
Inductance decrease with DC-bias L (1-8), I_{DC} = 100 mA	2% (typical)
Inductance match L (1-4) / L (5-8)	≤ 1%
Interwinding capacitance: C_i (1,4 – 5,8)	100 kHz, 100 mV
Test voltage V_{test}	50 Hz, 1s; N1 against N2
Resistance R_{DC} (N1 + N2)	short 4-5
Stray inductance L_{stray} (1-5)	100 kHz, 100 mV, short 5-8
Operating temperature range	–40 ... +85 °C
Weight	Approx. 2.0 g

Electrical specifications and ordering codes

L	R_{DC} (typ.)	L_{stray} (typ.)	C_i (typ.)	V_{test}	Ordering code
mH	Ω	μH	pF	V	
1	0.8	0.7	33	1500	B82803A0105A007
1.5	1.4	1.4	37	1500	B82803A0155A007
2.2	2.4	2.7	40	1500	B82803A0225A007
2.7	3.6	2.9	45	1500	B82803A0275A007
3.3	5.0	4.0	45	1000	B82803A0335A007
4.7	5.8	5.3	45	1000	B82803A0475A007
6.8	9.8	10.0	45	1000	B82803A0685A007
10	20.0	13.0	45	800	B82803A0106A007

Cautions and warnings

- Please note the recommendations in our Inductors data book (latest edition) and in the data sheets.
 - Particular attention should be paid to the derating curves given there.
 - The soldering conditions should also be observed. Temperatures quoted in relation to wave soldering refer to the pin, not the housing.
- If the components are to be washed varnished it is necessary to check whether the washing varnish agent that is used has a negative effect on the wire insulation, any plastics that are used, or on glued joints. In particular, it is possible for washing varnish agent residues to have a negative effect in the long-term on wire insulation.

Washing processes may damage the product due to the possible static or cyclic mechanical loads (e.g. ultrasonic cleaning). They may cause cracks to develop on the product and its parts, which might lead to reduced reliability or lifetime.
- The following points must be observed if the components are potted in customer applications:
 - Many potting materials shrink as they harden. They therefore exert a pressure on the plastic housing or core. This pressure can have a deleterious effect on electrical properties, and in extreme cases can damage the core or plastic housing mechanically.
 - It is necessary to check whether the potting material used attacks or destroys the wire insulation, plastics or glue.
 - The effect of the potting material can change the high-frequency behaviour of the components.
- Ferrites are sensitive to direct impact. This can cause the core material to flake, or lead to breakage of the core.
- Even for customer-specific products, conclusive validation of the component in the circuit can only be carried out by the customer.

Important notes

The following applies to all products named in this publication:

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