



## **xDSL splitter transformers**

EP 7 core inductors

**Series/Type:**        **B82803**

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Version:                1

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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

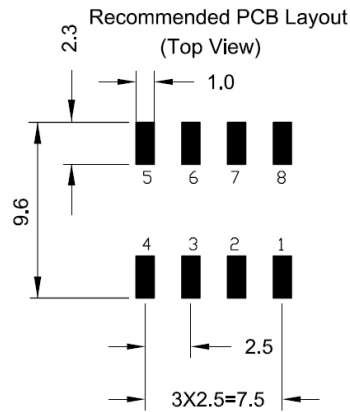
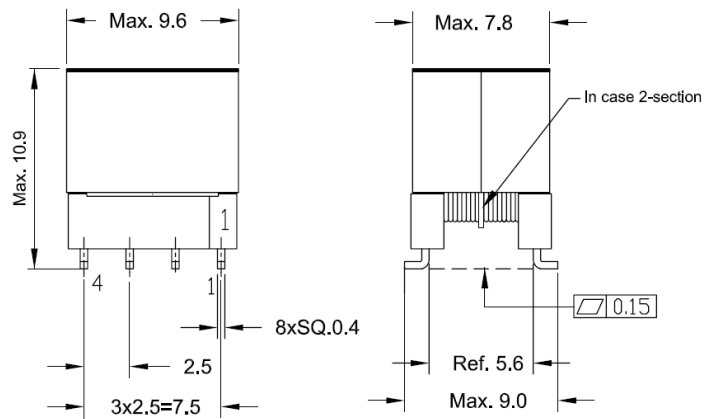
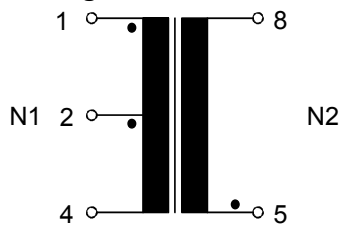
**Options**

- 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 <sub>DC</sub> = 100 mA	2% (typical)
Inductance match L (1-4) / L (5-8)	≤ 1%
Interwinding capacitance: C <sub>i</sub> (1,4 – 5,8)	100 kHz, 100 mV
Test voltage V <sub>test</sub>	50 Hz, 1s; N1 against N2
Resistance R <sub>DC</sub> (N1 + N2)	short 4-5
Stray inductance L <sub>stray</sub> (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 <sub>DC</sub> (typ.)	L <sub>stray</sub> (typ.)	C <sub>i</sub> (typ.)	V <sub>test</sub>	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 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.

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- Even for customer-specific products, conclusive validation of the component in the circuit can only be carried out by the customer. by the customer.

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