ADSL low pass filter

for Infineon ICs GEMINAX family
EP 7, 6.76 mH

Ordering code: **B78417A1706A003**

Date: October 2008

SMD

Application

- Matched to Infineon ICs GEMINAX family PEF 55008, 55208, 55016, 55218, 55602

Feature

- RoHS-compatible

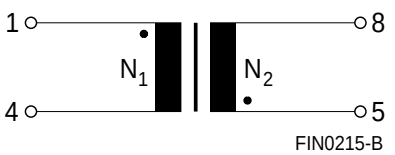
Marking

- Manufacturer, middle block of ordering code, date code

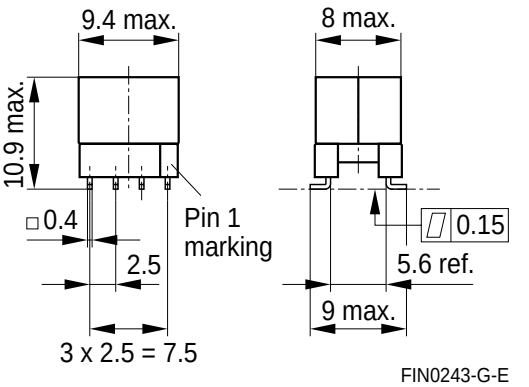
Delivery mode and packing unit

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

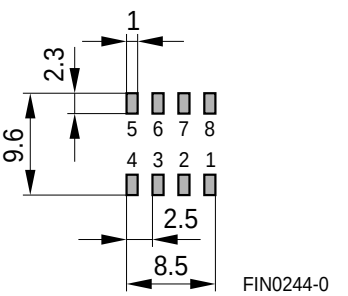
Pinning



Dimensional drawing



Layout recommendation



Dimensions in mm

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Technical data and measuring conditions

Main inductance L (4-5)	10 kHz, 100 mV, short 1-8
Inductance decrease	10 kHz, 100 mV, short 1-8
Stray inductance L_{stray} (1-4)	100 kHz, 100 mV, short 5-8
Interwinding capacitance C_i (4-5)	100 kHz, 100 mV
Test voltage V_{test}	50 Hz, 1 s; N_1 against N_2
Operating temperature range	–40 … +85 °C
Weight	Approx. 2.0 g

Characteristics and ordering code

(electrical specifications at 25 °C)

Ordering code	B78417A1706A003	
Type/Core	EP 7	
$N_1 : N_2$	1 : 1	
L	6.76 ±10%	mH
Inductance decrease at 100 mA (typ.)	1.5	%
L_{stray} (typ.)	250	µH
C_i (typ.)	3.0	pF
$R_{DC\ (N_1)}$ (typ.)	4.95	Ω
$R_{DC\ (N_2)}$ (typ.)	4.95	Ω
V_{test}	1500	V AC

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.
- 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.

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