



ADSL interface transformer

for Infineon ICs GEMINAX family
EP 7, 1.444 mH, 1.31:1.31:1:1

Ordering code: **B78417A1698A003**

Date: **October 2008**

SMD

Application

- Matched to Infineon ICs
GEMINAX family PEF 55008,
55208, 55016, 55218, 55602
- Annex A, I, J, N

Features

- RoHS-compatible

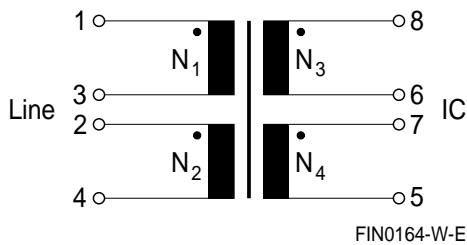
Marking

- Manufacturer, middle block
of ordering code, date code

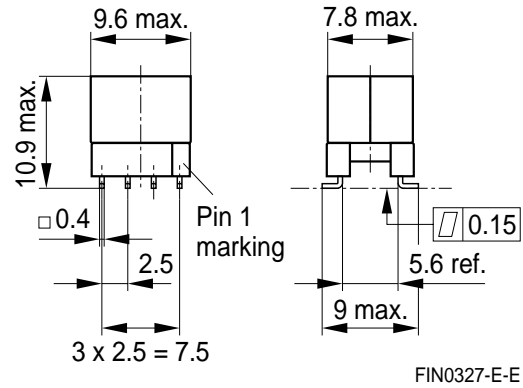
Delivery mode and packing unit

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

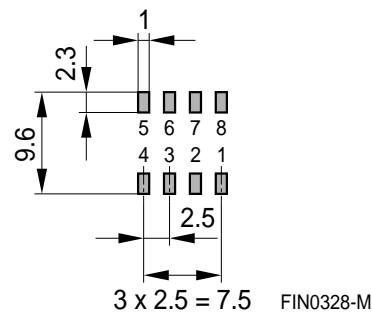
Pinning



Dimensional drawing



Layout recommendation



Dimensions in mm

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Technical data and measuring conditions

Main inductance L (1-4)	10 kHz, 100 mV, short 2-3
Stray inductance L_{stray} (1-4)	100 kHz, 100 mV, short (5-6-7-8), (3-2)
Interwinding capacitance C_i (1-8)	100 kHz, 100 mV, short (6-7), (2-3)
Resistance $R_{\text{DC (Line)}}$	Short 2-3
Resistance $R_{\text{DC (IC)}}$	Short 6-7
Test voltage V_{test}	50 Hz, 1 s; N_1 , N_2 against N_3 , N_4
Insertion loss α	Line to circuit, line open
Total harmonic distortion THD	$V_{\text{RMS}} = 4.05 \text{ V}$, 135 Ω , 30 kHz, line side
Operating temperature range	-40 ... +85 °C
Weight	Approx. 2.0 g

Characteristics and ordering code

(electrical specifications at 25 °C)

Ordering code	B78417A1698A003	
Type/Core	EP 7	
$N_1 : N_2 : N_3 : N_4$	1.31 : 1.31 : 1 : 1	
L	1.444 \pm 10%	mH
L_{stray}	< 5	μ H
C_i (typ.)	36	pF
$R_{\text{DC (N}_1)}$ (typ.)	0.95	Ω
$R_{\text{DC (N}_2)}$ (typ.)	0.96	Ω
$R_{\text{DC (N}_3)}$ (typ.)	0.49	Ω
$R_{\text{DC (N}_4)}$ (typ.)	0.66	Ω
V_{test}	1500	V AC
Insertion loss	0.5	dB
THD (typ.)	80	dB

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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