ISDN transformers

U_{K0} interface, 4B3T
EP 13, 7.57 mH, 08:08:1

Series/Type: **B78421A1721A003**

Date: October 2008

SMD

Applications

- Matching to Infineon ICs T-Smint
  PEF 80902, 80903
  PEF 81902, 81903
  PEF 82902, 82903

Feature

- RoHS-compatible

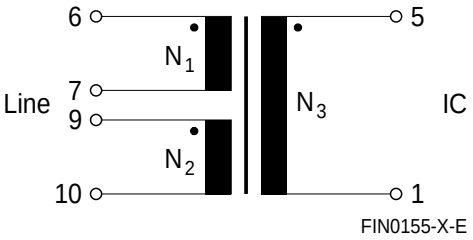
Marking

- Manufacturer, middle block of ordering code, date code

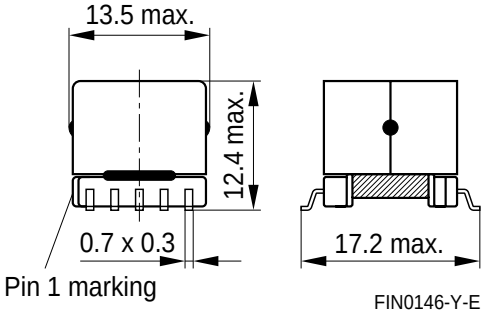
Delivery mode and packing unit

- 32-mm blister tape, 330-mm reel
- Packing unit upon request

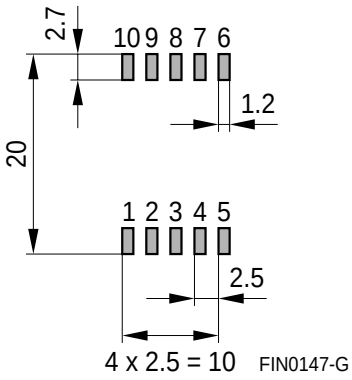
Pinning



Dimensional drawing



Layout recommendation



Dimensions in mm

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Technical data and measuring conditions

Main inductance L (6-10)	10 kHz, 100 mV, short 9-7
Stray inductance L_{stray} (6-10)	10 kHz, 100 mV, short 5-1, 7-9
Interwinding capacitance C_i (7-1)	100 kHz, 100 mV, short 7-9
Resistance $R_{DC\ (Line)}$; $R_{DC\ (IC)}$	$R_{DC(Line)}$: short 7-9; $R_{DC(IC)}$: –
Test voltage V_{test}	50 Hz, 1 s; N_1, N_2 against N_3
DC current I_{DC}	With I_{DC} bias L drops < 5%
Transmission code	4B3T
Operating temperature range	–40 °C … +85 °C
Weight	Approx. 6.4 g

Characteristics and ordering code

(electrical specifications at 25 °C)

Ordering code	B78421A1721A003	
Type/Core	EP 13	
$N_1 : N_2 : N_3$	0.8 : 0.8 : 1	
L	7.57 ± 10 %	mH
L_{stray} (typ.)	60	µH
C_i (typ.)	27	pF
$R_{DC\ (Line)}$ (typ.)	3.8	Ω
$R_{DC\ (IC)}$ (typ.)	1.9	Ω
V_{test}	2000	V AC
I_{DC} (typ.)	60	mA

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.

Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application.**

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2. We also point out that **in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified.** In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.

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