



## **ISDN transformers**

U<sub>K0</sub> interface, 2B1Q  
EP 13, 14.47 mH, 1:1:1

**Series/Type:**            **B78421A1720A003**

**Date:**                    **October 2008**

**SMD**

**Applications**

- Matching to Infineon ICs Q-Smint  
PEF 80912, 80913  
PEF 81912, 81913  
PEF 82912, 82913

**Feature**

- RoHS-compatible

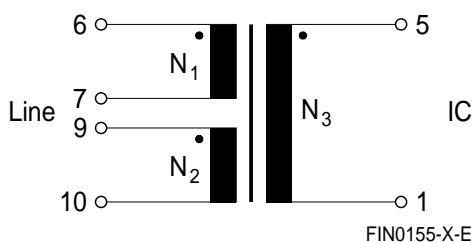
**Marking**

- Manufacturer, middle block of ordering code, date code

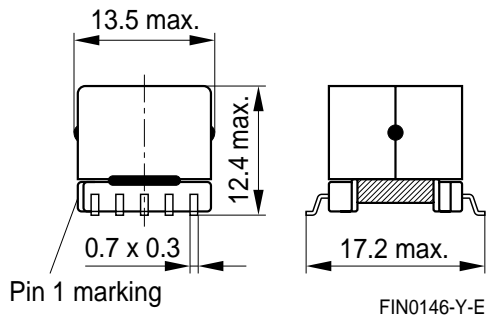
**Delivery mode and packing unit**

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

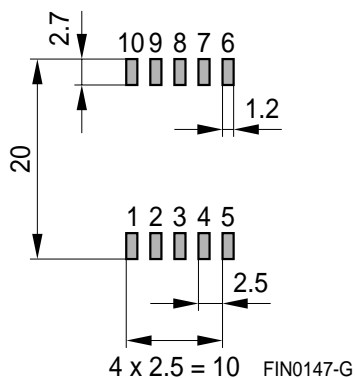
**Pinning**



**Dimensional drawing**



**Layout recommendation**



Dimensions in mm

**SMD**
**Technical data and measuring conditions**

Main inductance L (6-10)	10 kHz, 100 mV, short 9-7
Stray inductance L <sub>stray</sub> (6-10)	10 kHz, 100 mV, short 5-1, 9-7
Interwinding capacitance C <sub>i</sub> (7-1)	100 kHz, 100 mV, short 9-7
Resistance R <sub>DC (Line)</sub> ; R <sub>DC (IC)</sub>	R <sub>DC(Line)</sub> : short 7-9; R <sub>DC(IC)</sub> : –
Test voltage V <sub>test</sub>	50 Hz, 1 s; N <sub>1</sub> , N <sub>2</sub> against N <sub>3</sub>
DC current I <sub>DC</sub>	With I <sub>DC</sub> bias L drops < 5%
Transmission code	2B1Q
Operating temperature range	–40 °C ... +85 °C
Weight	Approx. 6.4 g

**Characteristics and ordering code**

(electrical specifications at 25 °C)

Ordering code	B78421A1720A003	
Type/Core	EP 13	
N <sub>1</sub> : N <sub>2</sub> : N <sub>3</sub>	1 : 1 : 1	
L	14.47 ±8%	mH
L <sub>stray</sub> (typ.)	160	μH
C <sub>i</sub> (typ.)	29	pF
R <sub>DC (Line)</sub> (typ.)	7.8	Ω
R <sub>DC (IC)</sub> (typ.)	3.8	Ω
V <sub>test</sub>	2000	V AC
I <sub>DC</sub> (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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