



## **ISDN transformers**

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

**Series/Type:**            **B78421P1582A005**

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

**Applications**

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

**Feature**

- RoHS-compatible

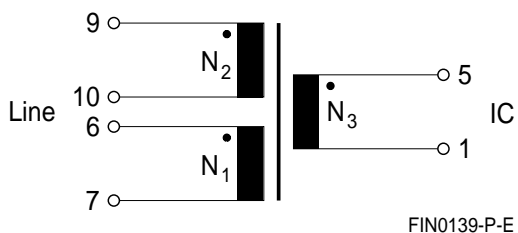
**Marking**

- Manufacturer, middle block of ordering code, date code

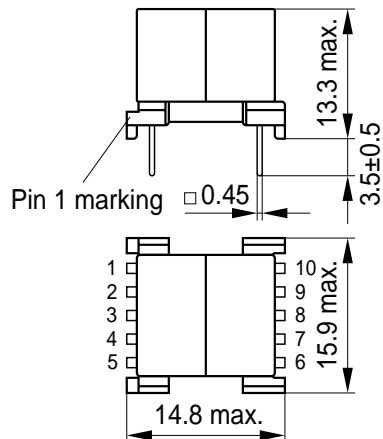
**Delivery mode and packing unit**

- Polyfoam tray
- Packing unit: 500 pcs.

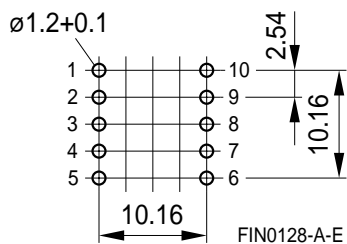
**Pinning**



**Dimensional drawing**



**Recommended hole arrangement (view in mounting direction)**



Dimensions in mm

**Technical data and measuring conditions**

|  |  |
|--|--|
| Main inductance L (10-6)                                 | 10 kHz, 100 mV, short 9-7  |
| Stray inductance L <sub>stray</sub> (10-6)               | 10 kHz, 100 mV, short 5-1, 7-9                                     |
| Interwinding capacitance C <sub>i</sub> (7-1)            | 100 kHz, 100 mV, short 7-9   |
| Resistance R <sub>DC (Line)</sub> ; R <sub>DC (IC)</sub> | R <sub>DC(Line)</sub> : short 9-7; 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. 7 g  |

**Characteristics and ordering code**

(electrical specifications at 25 °C)

|  |                 |      |
|--|-----------------|------|
| Ordering code                                    | B78421P1582A005 |      |
| 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>T</sub>                                   | 2000            | V AC |
| I <sub>DC</sub> (typ.)                           | 80              | 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.

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The following applies to all products named in this publication:

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