Transformers

DC/DC converters
ER 11

Series/Type: **B78334B1033/B1034**

Date: October 2012

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Construction

- ER 11 ferrite core with 10 gullwing terminals

Features

- RoHS-compatible

Applications

- Low-power DC/DC converters
- Pulse transformers
- Broadband transformers
- Drive transformers for small-signal semiconductors

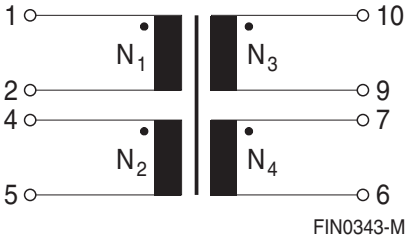
Marking

- Manufacturer, middle block of ordering code, date code, pin1 marker

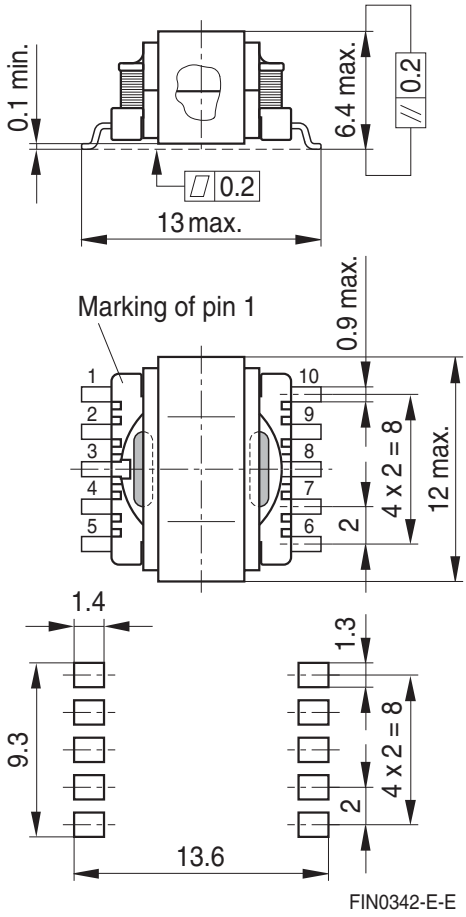
Delivery mode and packing unit

- 24-mm blister tape, reel 330 mm
- Packing unit: 700 pcs./reel

Pinning



Dimensional drawing



Dimensions in mm

Technical data and measuring conditions

Main inductance L (1-2)	10 kHz, 100 mV
Test voltage V_{test}	50 Hz, 1 s; all windings against each other
Operating temperature range	–40 °C … +85 °C
Weight	Approx. 1.5 g

Characteristics and ordering codes

Ordering code	B78334B1033A003	B78334B1034A003	
Type/Core	ER 11	ER 11	
$N_1 : N_2 : N_3 : N_4$	1 : 1 : 1 : 1	1 : 1 : 1 : 1	
L	0.1 ±12%	1.08 +40/–30%	mH
V_{test}	1000	1000	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.
  Washing processes may damage the product due to the possible static or cyclic mechanical loads (e.g. ultrasonic cleaning). They may cause cracks to develop on the product and its parts, which might lead to reduced reliability or lifetime.
- 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.** As a rule we are either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether a product with the properties described in the product specification is suitable for use in a particular customer application.
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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Release 2018-10