VHF Chokes

Series/Type: **B82114**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B82114R0000A001		2013-07-19	2014-01-31	2014-07-31
B82114R0000A004		2013-07-19	2014-01-31	2014-07-31
B82114R0000C001		2013-07-19	2014-01-31	2014-07-31
B82114R0000C004		2013-07-19	2014-01-31	2014-07-31

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.

Rated voltage 500 V AC/DC[1)]
Rated current max. 1 A

Construction

- Round 6-aperture ferrite core
- With or without insulating sleeve

Features

- The selected core material provides maximum impedance in the relevant frequency range of 50 to 200 MHz
- An insulating sleeve prevents any turn-to-turn short circuits
- Suitable for wave soldering
- RoHS-compatible

Applications

- Broadband interference suppression in electrical systems and equipment in the RF and VHF range
- Reduction of radiated interference in broadcasting and TV receivers

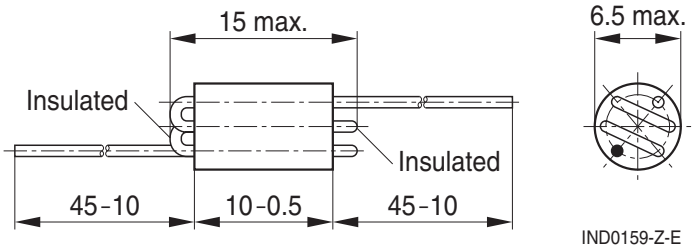
Terminals

- Central axial leads
- Base material Cu
- Hot-dip tinned with pure tin

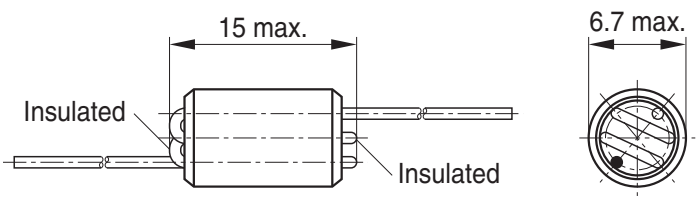
Delivery mode: Bulk

Dimensional drawings

B82114R*A … (without insulating sleeve)



B82114R*C … (with insulating sleeve)



Dimensions in mm

1) 500 V AC only with insulating sleeve

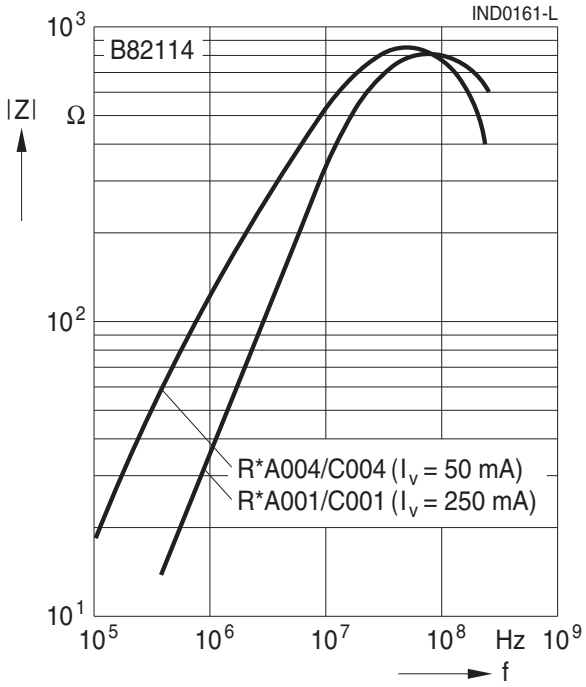
Technical data and measuring conditions

Test voltage V_{test}	2500 V AC, 1 min (only for chokes with insulation)
Rated current I_R	Max. 1 A at ambient temperature +40 °C
Resonance frequency f_{res}	Measured with Agilent 4294A, +20 °C
Solderability (lead-free)	Sn95.5Ag3.8Cu0.7: +(245 ±5) °C, (3 ±0.3) s Wetting of soldering area ≥ 90% (to IEC 60068-2-20, test Ta)
Resistance to soldering heat (wave soldering)	+(260 ±5) °C, 10 s (to IEC 60068-2-20, test Tb)
Climatic category	25/085/04 (to IEC 60068-1)
Storage conditions	Mounted: –25 °C … +85 °C Packaged: –25 °C … +40 °C, ≤ 75% RH
Weight	Approx. 1.65 g

Characteristics and ordering codes

V_R V AC/DC	Version	f_{res} MHz	|Z| at f_{res} Ω	Color code	Number of turns	Approx. weight g	Ordering code
—	without insulating sleeve	60	900	black	2.5	1.3	B82114R0000A004
		100	800	trans-parent	2.5	1.3	B82114R0000A001
500	with insulating sleeve	60	900	black	2.5	1.3	B82114R0000C004
		100	800	trans-parent	2.5	1.3	B82114R0000C001

Impedance |Z| versus frequency f
measured with impedance analyzer
Agilent 4294A, typical values at +20 °C



I_V: DC magnetic bias

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, EPCOS is 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 an EPCOS 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.

3. **The warnings, cautions and product-specific notes must be observed**.

4. In order to satisfy certain technical requirements, **some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as hazardous)**. Useful information on this will be found in our Material Data Sheets on the Internet (www.epcos.com/material). Should you have any more detailed questions, please contact our sales offices.

5. We constantly strive to improve our products. Consequently, **the products described in this publication may change from time to time**. The same is true of the corresponding product specifications. Please check therefore to what extent product descriptions and specifications contained in this publication are still applicable before or when you place an order.

   We also **reserve the right to discontinue production and delivery of products**. Consequently, we cannot guarantee that all products named in this publication will always be available. The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products.

6. Unless otherwise agreed in individual contracts, **all orders are subject to the current version of the "General Terms of Delivery for Products and Services in the Electrical Industry" published by the German Electrical and Electronics Industry Association (ZVEI)**.

7. The trade names EPCOS, BAOKE, Alu-X, CeraDiode, CeraLink, CSMP, CSSP, CTVS, DeltaCap, DigiSiMic, DSSP, FilterCap, FormFit, MiniBlue, MiniCell, MKD, MKK, MLSC, MotorCap, PCC, PhaseCap, PhaseCube, PhaseMod, PhiCap, SIFERRIT, SIFI, SIKOREL, SilverCap, SIMDAD, SiMic, SIMID, SineFormer, SIOV, SIP5D, SIP5K, ThermoFuse, WindCap are **trademarks registered or pending** in Europe and in other countries. Further information will be found on the Internet at www.epcos.com/trademarks.