



## Inductors

VHF chokes

**Series/Type:**        **B82114**

Date:                    March 2010

Version:                2

**Rated voltage 500 V AC/DC<sup>1)</sup>**  
**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

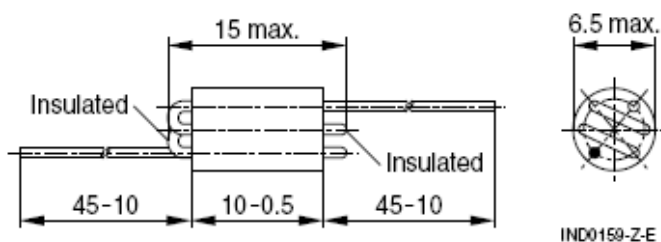
**Terminals**

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

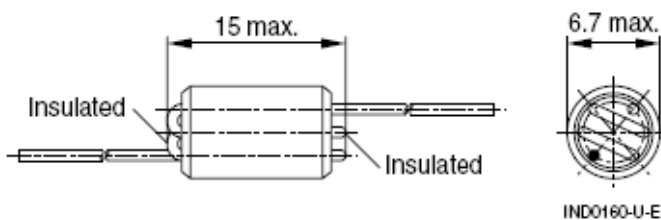
**Delivery mode:** Bulk

**Dimensional drawings**

B82114R\*A ... (without insulating sleeve)



B82114R\*C ... (with insulating sleeve)



Dimensions in mm

<sup>1)</sup> 500 V AC only with insulating sleeve

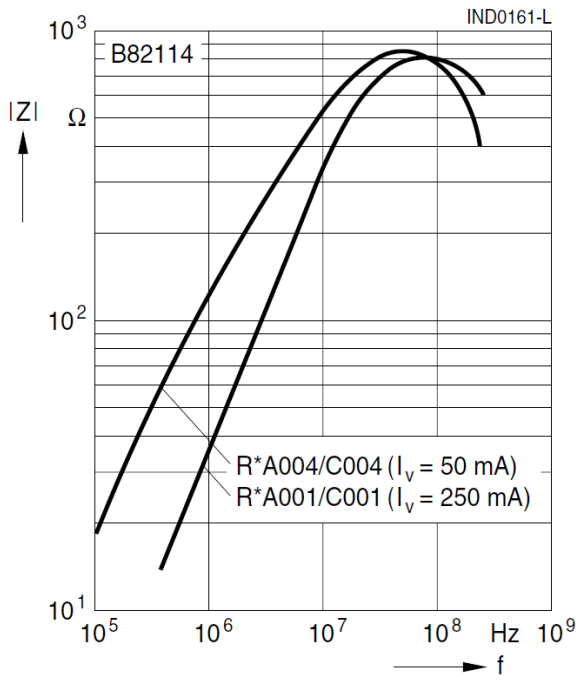
**Technical data and measuring conditions**

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, 10s (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**

$V_R$	Version	$f_{res}$	$ Z $ at $f$	Color code	Number of turns	Approx. Weight g	Ordering code
V AC/DC		MHz	$\Omega$				
—	without	60	900	black	2.5	1.3	B82114R0000A004
	insulating sleeve	100	800	transparent	2.5	1.3	B82114R0000A001
500	with	60	900	black	2.5	1.3	B82114R0000C004
	insulating sleeve	100	800	transparent	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.
- 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:

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