



Chokes and inductors

VHF chokes

Series/Type: B82111B
Date: November 2005

Rated voltage 500 VAC/DC
Rated current 2 to 10 A
Rated inductance 3 to 25 μ H



Construction

- Ferrite cylinder core
- Winding: single-layer, enamel copper wire, winding ends brought out as leads
- Polyester insulating sleeve

Features

- High resonant frequency
- High rated current
- RoHS-compatible¹⁾

Applications

- RF blocking and filtering
- Interference suppression in small appliances


Marking

L_R and I_R in clear text and approval mark

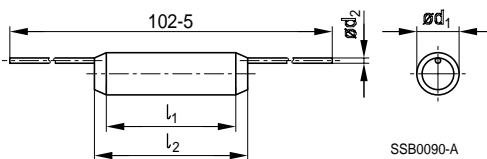
Delivery mode

Bulk

Approvals

Approval mark	Standard
	EN 60938-2

Dimensional drawing

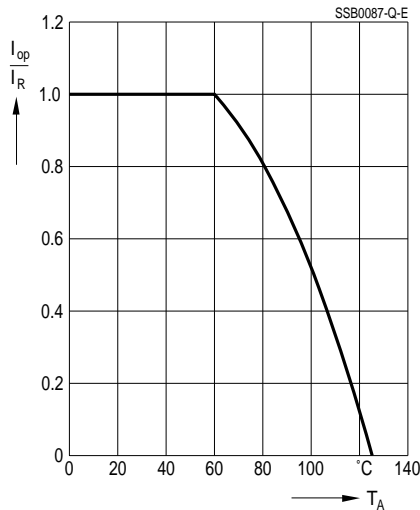


1) RoHS-compatible is defined as compatible with the following documents:
 DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 February 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment COM (2004) 606 final Proposal for a COUNCIL DECISION amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment.

General technical data

Test voltage V_{test}	2500 VAC, 1 min
Rated inductance L_R	Measuring frequency: $L \leq 10 \mu\text{H} = 1 \text{ MHz}$ $10 \mu\text{H} < L \leq 1000 \mu\text{H} = 100 \text{ kHz}$
Inductance tolerance	$\pm 20\%$
Rated current I_R	Referred to 60 °C ambient temperature, for derating see below
Inductance decrease $\Delta L/L_0$	$\leq 10\%$ (referred to initial value) at DC load I_R at 20 °C
DC resistance R_{typ}	Typical value, measured at 20 °C ambient temperature
Resonance frequency $f_{\text{res, min}}$	Typical value, measured with Scalar Network Analyzer ZAS from Rohde & Schwarz
Climatic category (IEC 60068-1)	55/125/56 (-55 °C/+125 °C/56 days damp heat test)

Current derating I_{op}/I_R
versus ambient temperature T_A
(rated temperature $T_R = 60 \text{ °C}$)


Mounting information

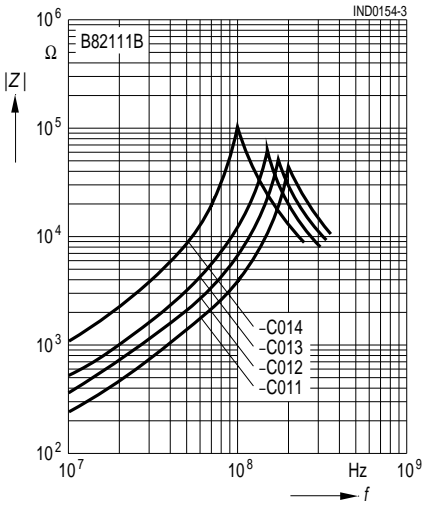
When bending the leads, take care that the bending point is **at least 3 mm** apart from the face ends of the core and that the start-of-winding-areas are not subjected to any mechanical stress.

Characteristics and ordering codes

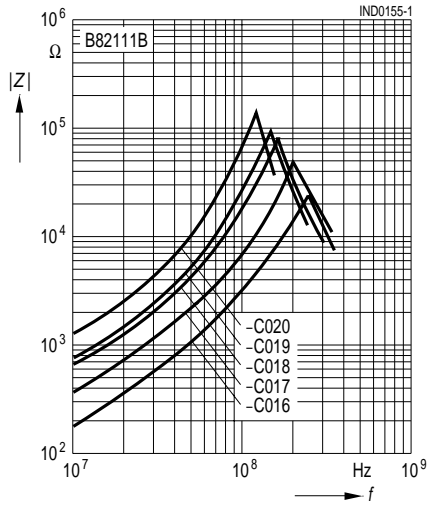
I _R	L _R	R _{typ}	f _{res}	Dimensions (mm)				Approx. weight g	Ordering code
				A	μH	Ω	MHz		
2	17	0.063	100	18.3	24	7.0	0.45	3.0	B82111B0000C014
3	8	0.025	145	18.3	24	7.0	0.63	3.0	B82111B0000C013
3	13	0.024	170	24.5	29	6.5	0.67	3.5	B82111B0000C019
3	20	0.054	125	24.5	29	6.0	0.5	3.5	B82111B0000C020
3	25	0.046	85	28.5	34	8.5	0.63	6.0	B82111B0000C024
4	6	0.017	170	18.3	24	7.5	0.75	3.0	B82111B0000C012
4	11	0.020	150	24.5	29	6.5	0.71	6.0	B82111B0000C018
4	15	0.024	120	28.5	34	8.5	0.75	7.0	B82111B0000C023
6	4	0.014	205	18.3	24	7.5	0.8	4.0	B82111B0000C011
6	6	0.010	200	24.5	29	7.0	0.95	5.0	B82111B0000C017
6	9	0.012	150	28.5	34	9.0	0.95	8.0	B82111B0000C022
9	3	0.006	220	24.5	29	7.5	1.2	5.0	B82111B0000C016
10	5	0.005	175	28.5	34	9.5	1.3	10.0	B82111B0000C021

Impedance $|Z|$ versus frequency f
(typical values)

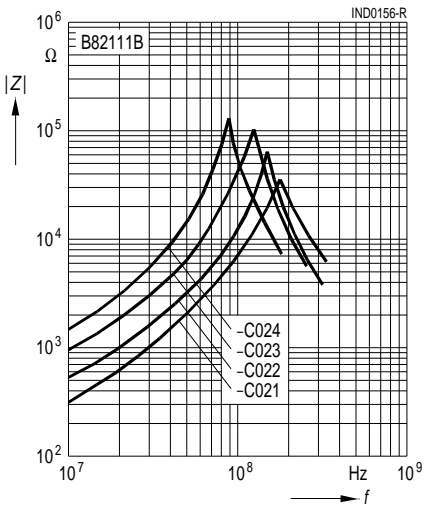
B82111B0000C011...C014



B82111B0000C016...C020



B82111B0000C021...C024



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 passive 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 a passive 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 a passive 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.

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, CeraDiode, CSSP, PhaseCap, PhaseMod, SilverCap, SIFI, SIMID, SIKOREL, SIOV, SIP5D, SIP5K, TOPcap, UltraCap, 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.