

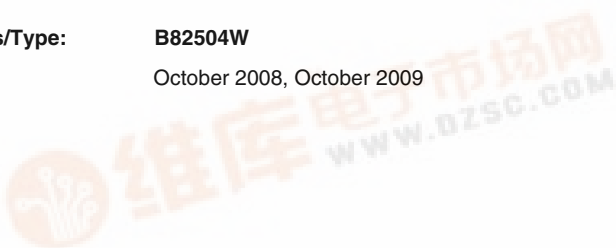


Power line chokes

I core chokes
500 V AC, 1 ... 25 A, 0.065 ... 27 mH

Series/Type: B82504W

Date: October 2008, October 2009



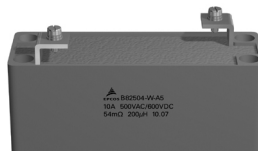


Power line chokes

B82504W

I core chokes

Rated voltage 500 V AC/600 V DC
Rated current 1 A to 25 A
Rated inductance 0.065 mH to 27 mH



Construction

- I core choke
- Rectangular plastic case
- Resin potting

Features

- Low power dissipation
- Suppression of broadband interference
- Compact design
- Design complies with EN 60938-2 (VDE 0565-2)
- RoHS-compatible

Applications

- Suppression of symmetrical and asymmetrical interference
- High-performance power supplies
- Industrial applications

Terminals

Screw terminals M4

Marking

Manufacturer, ordering code, rated inductance, rated voltage, rated current, DC resistance, date of manufacture (MM.YY)

Delivery mode

Cardboard box

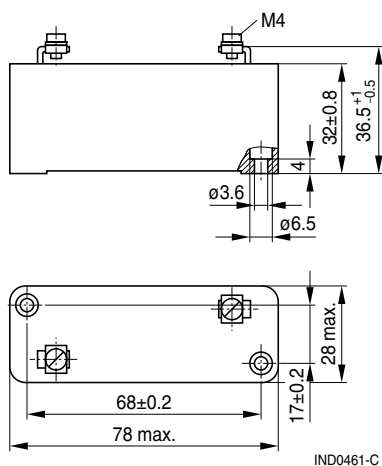


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Dimensional drawing (dimensions in mm)



Tolerances to ISO 2768-C unless otherwise noted.

Dimensions in mm

Technical data and measuring conditions

Rated voltage V_R	500 V AC (50/60 Hz) / 600 V DC During operation between winding and metal parts (VDE 0565-2).
Test voltage V_{test}	2800 V AC, 2 s (winding/core) 2800 V AC, 2 s (winding/case)
Rated temperature T_R	60 °C
Rated current I_R	Referred to 50 Hz and rated temperature
Permissible operating current at 400 Hz	$0.6 \cdot I_R$
Rated inductance L_R	Measured with Agilent 4284A at 0.1 mA, 20 °C Measuring frequency: $L_R \leq 1 \text{ mH} = 100 \text{ kHz}$ $L_R > 1 \text{ mH} = 10 \text{ kHz}$
Inductance tolerance	$\pm 20\%$ at 20 °C
DC resistance R_{typ}	Measured at 20 °C, typical values
Storage conditions (packaged)	-25 °C ... +40 °C, $\leq 75\%$ RH
Climatic category	40/125/56 (to IEC 60068-1)
Weight	Approx. 170 ... 230 g



Power line chokes

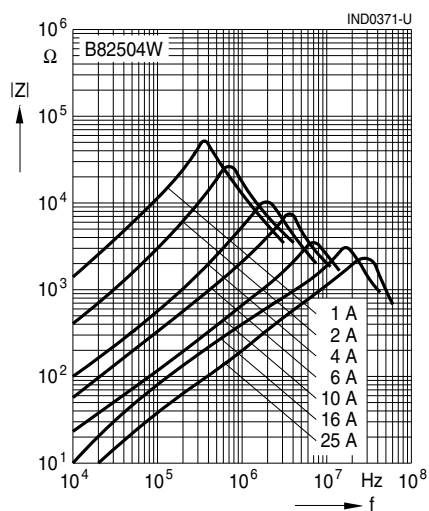
B82504W

I core chokes

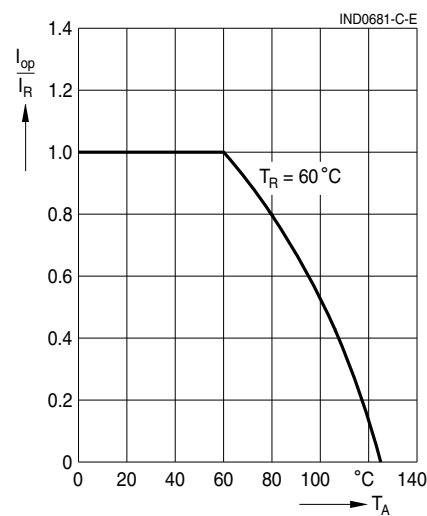
Characteristics and ordering codes

I_R A	L_R mH	R_{typ} Ω	Ordering code
1	27	5.25	B82504W0000A001
2	7.5	1.3	B82504W0000A002
4	2.0	0.33	B82504W0000A003
5	1.2	0.20	B82504W0000A009
6	0.6	0.15	B82504W0000A004
10	0.2	0.054	B82504W0000A005
16	0.12	0.019	B82504W0000A016
25	0.065	0.009	B82504W0000A007

Impedance $|Z|$ versus frequency f
measured at 20 °C, typical values



Current derating I_{op}/I_R
versus ambient temperature T_A





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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