



Power line chokes

Current-compensated ring core triple chokes

1.3 mH, 520/300 V AC, 20 A, 60 ° C

Ordering code: B82747S4203A020

Date: 2010-09-03

Version: 03

Rated voltage 520/300 V AC

Rated current 20 A / 60 °C

Rated inductance 1.3 mH

Construction

- Current-compensated ring core double choke
- Ferrite core
- Polycarbonate base plate with spacer (UL 94 V-0)
- Sector winding
- Clearance distances $\geq 5,3$ mm

Features

- High resonance frequency
- Approx. 1.0% stray inductance for differential-mode interference suppression
- Suitable for wave soldering
- Design complies with EN 60938-2 (VDE 0565-2)
- RoHS compatible

Applications

- Suppression of common-mode interferences
- Switch-mode power applications
- Frequency converters

Terminals

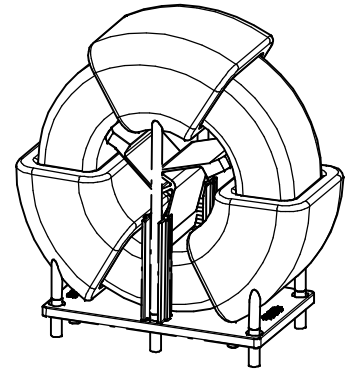
- Ends of winding wires
- Hot dip tinned

Marking

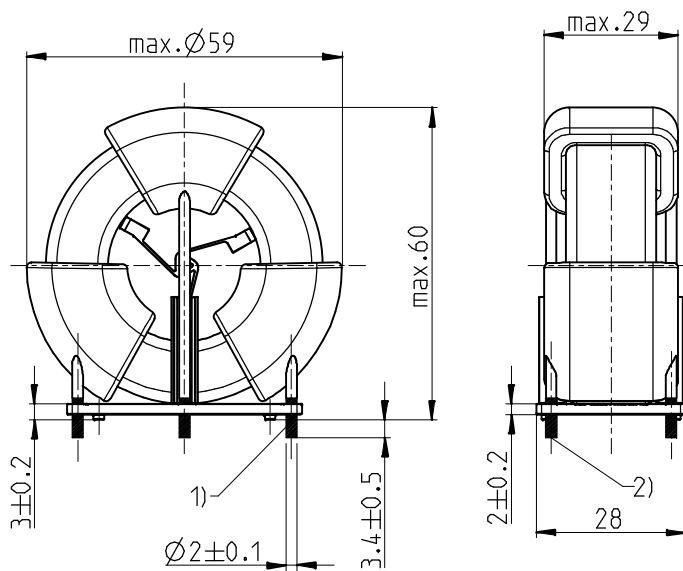
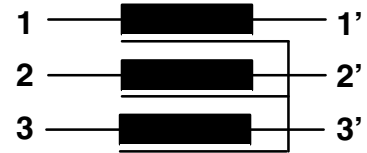
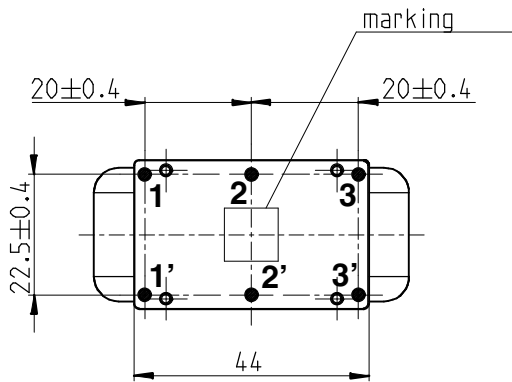
- Manufacturer, ordering code, rated current, rated voltage, rated inductance, date of manufacture (YYWWD)

Delivery mode

- cardboard box



Dimensional drawing and pin configuration



- 1) terminals solderable with Sn tinned
- 2) tin tip permissible

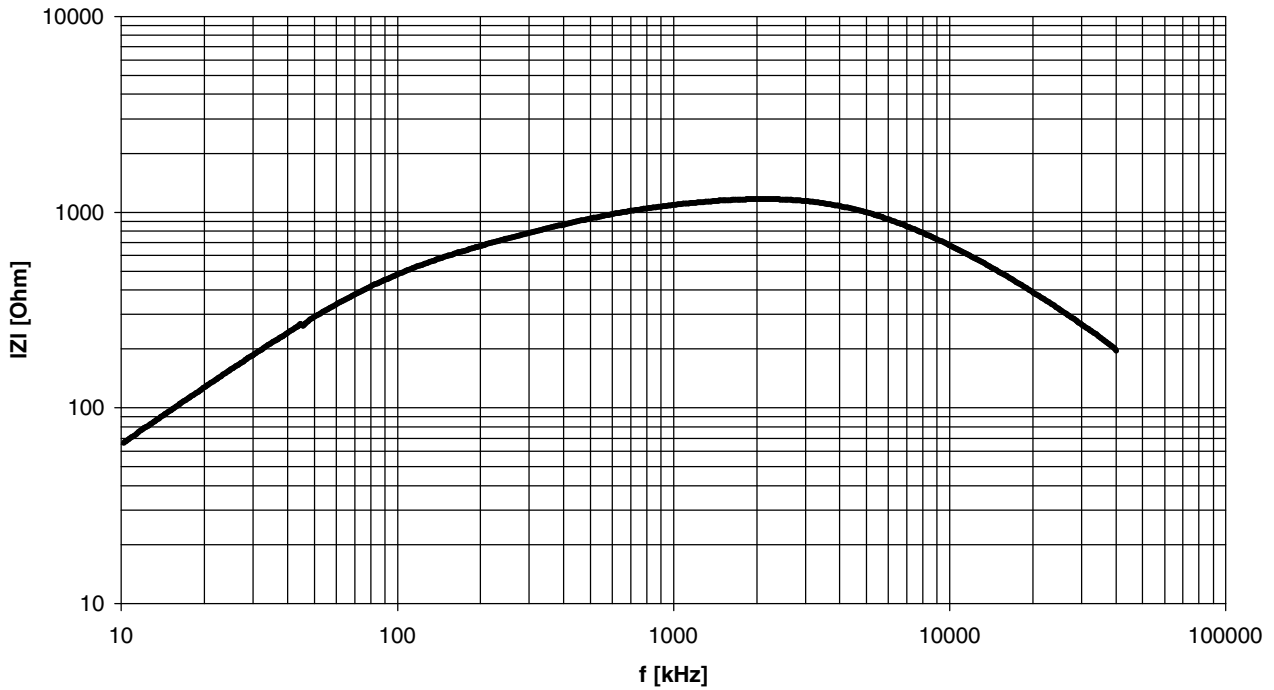
All dimensions in mm

Tolerances to ISO 2768-c unless otherwise noted

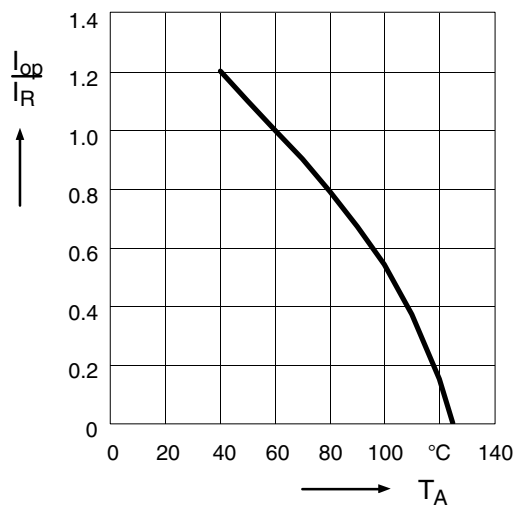
Technical data and measuring conditions

Rated voltage V_R	520/300 V AC / (50/60 Hz)
Test voltage V_{test}	2800 V AC, 2 s (line/line)
Rated temperature T_R	60 °C
Rated current I_R	20 A Referred to rated temperature
Rated inductance L_R	1.3 mH Measured with Agilent 4284A at 100 kHz, 0.1 mA, 20 °C Inductance is specified per winding.
Inductance tolerance	-30/+50% at 20 °C
Inductance decrease $\Delta L/L_0$	< 10% at DC magnetic bias with I_R , 20 °C
Stray inductance $L_{stray,typ}$	15.0 μ H Measured with Agilent 4284A at 10 kHz, 5 mA, 20 °C, typical value
DC resistance R_{max}	5.2 m Ω Measured at 20 °C, maximum value, specified per winding
Solderability (lead-free)	Sn96.5Ag3.0Cu0.5: (245 \pm 5) °C, (3 \pm 0.3) s Wetting of soldering area \geq 95% (to IEC 60068-2-20, test Ta)
Resistance to soldering heat (wave soldering)	(260 \pm 5) °C, (10 \pm 1) s (to IEC 60068-2-20, test Tb)
Climatic category	40/125/56 (to IEC 60068-1)
Storage conditions (packaged)	-25 °C ... +40 °C, \leq 75% RH
Weight	Approx. 170 g

Impedance $|Z|$ versus frequency f
 measured with windings in parallel at 20 °C, typical values



Current derating I_{op}/I_R versus temperature T_A
 rated temperature = 60 °C



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. Derating must be applied in the case the ambient temperature in application exceeds the rated temperature of the component.
 - Ensure the operation temperature of the component in application, which is the sum of the ambient temperature and the temperature rise owing to losses ("self-heating"), not to exceed the maximum value specified in the climatic category.
 - 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 potted 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.

(05/10)

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(04/10)