



Power line chokes

Current-compensated ring core double choke

5.7 mH, 16 A, 60 °C, 250 V AC

Ordering code: B82724N2163A060

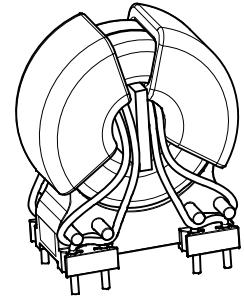
Date: 2010-11-25

Version: 02

Rated voltage 250 V AC
Rated current 16 A
Rated inductance 5.7 mH

Construction

- Current-compensated ring core double choke
- Nanocrystalline core
- Plastic core case (UL 94 V-0)
- Plastic core mount (UL 94 V-0)
- FR4 spacer
- Polyurethane glue
- Sector winding



Features

- High impedance over wide frequency range
- High saturation strength
- Approx. 0.1% stray inductance for symmetrical 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

Terminals

- Ends of winding wires
- Hot-dip tinned

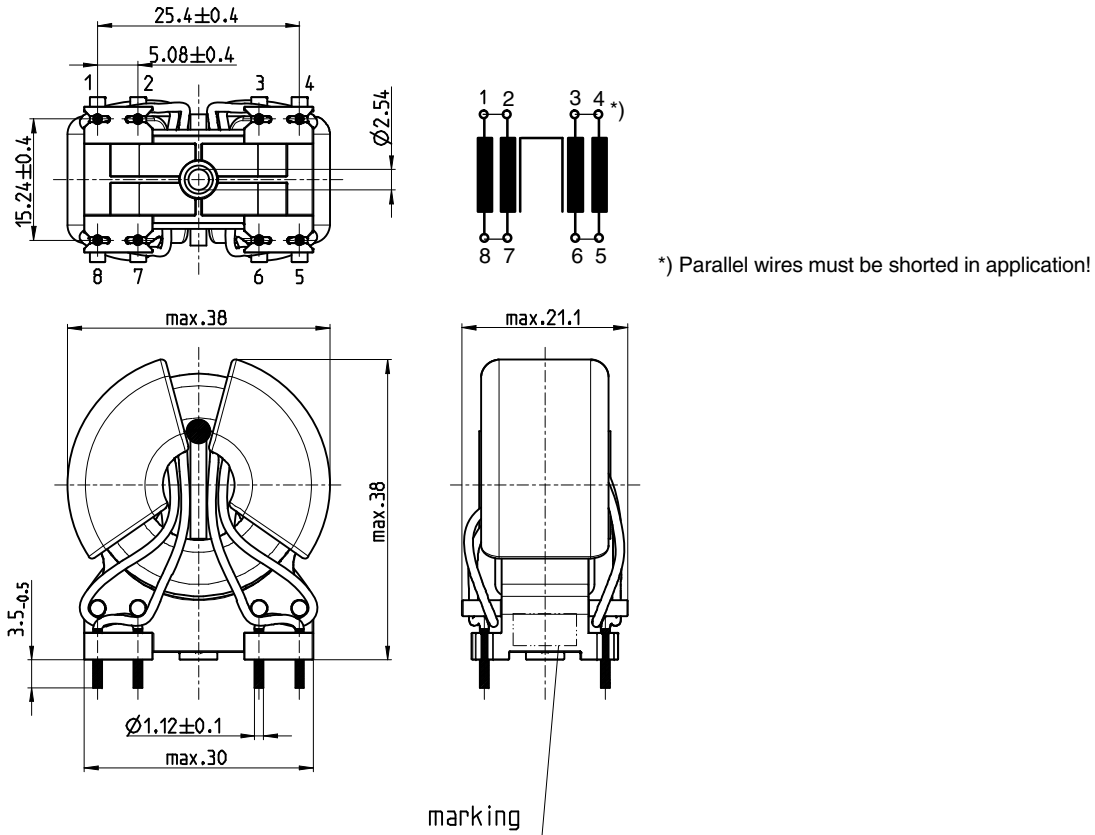
Marking

- Manufacturer (logo), ordering code (shortened), rated inductance, rated current, rated voltage, date of manufacture (YYWWD), factory identification code

Delivery mode

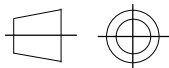
- Blister tray in cardboard box

Dimensional drawing and pin configuration



Tolerances to ISO 2768-C unless otherwise noted.

Dimensions in mm

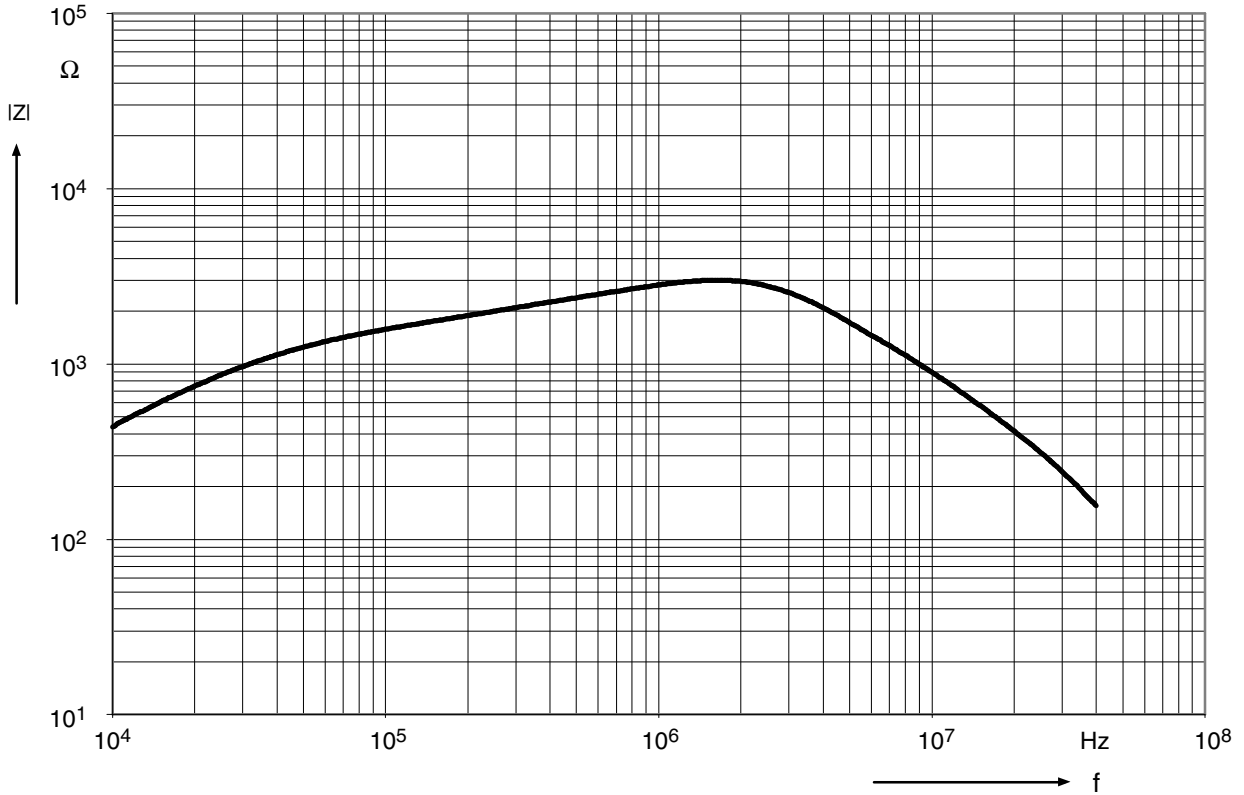


Technical data and measuring conditions

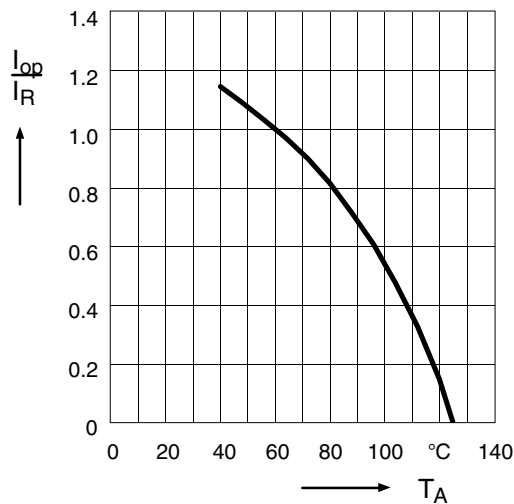
Rated voltage V_R	250 V AC (50/60 Hz)
Test voltage V_{test}	1800 V AC / 2500 V DC, 2 s (line/line)
Rated temperature T_R	60 °C
Rated current I_R	16 A Referred to 50 Hz and rated temperature (shorted parallel wires in application)
Rated inductance L_R	5.7 mH Measured with Agilent 4284A at 10 kHz, 1 mA ¹⁾ , 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 $L_{stray,typ}$	6.1 µH Measured with Agilent 4284A at 10 kHz, 5 mA, 20 °C, typical value
DC resistance R_{typ}	≤ 5.5 mΩ Measured at 20 °C, typical value, specified per winding and shorted parallel wires
Solderability (lead free)	Sn96.5Ag3.0Cu0.5: (245 ± 5) °C, (3 ± 0.3) s Wetting of soldering area ≥ 95% (to IEC 60068-2-58, test Ta)
Resistance to soldering heat (wave soldering)	(260 ± 5) °C, (10 ± 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, ≤ 75% RH
Weight	Approx. 45 g

¹⁾ Level must be controlled during measurement

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)