# Power line choke

Preliminary data

## Current–compensated ring core double choke
## 250 V AC, 5.6 mH, 2 A / +70 °C

| | |
|---|---|
| **Series/Type:** | **B82722** |
| **Ordering code:** | **B82722A2202A040** |
| Date: | 2016–05–16 |
| Version: | 1 |

Preliminary data

**Rated voltage 250 V AC**
**Rated current 2 A / +70 °C**
**Rated inductance 5.6 mH**


## Construction

- Current–compensated ring core double choke
- Ferrite core with epoxy coating (UL 94 V–0)
- Plastic case (UL 94 V–0) with in–molded pins
- Potting (UL 94 V–0)
- Sector winding
- Clearance distances ≥ 2.5 mm

## Features

- High resonance frequency due to special winding technique
- Approx. 0.5% 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 applications

## Terminals

- Base material CuNi18Zn20
- Layer composition Ni, Sn
- Hot–dipped
- Pins 0.7 × 0.7 (mm)
- Lead spacing 12.5 × 20 (mm)

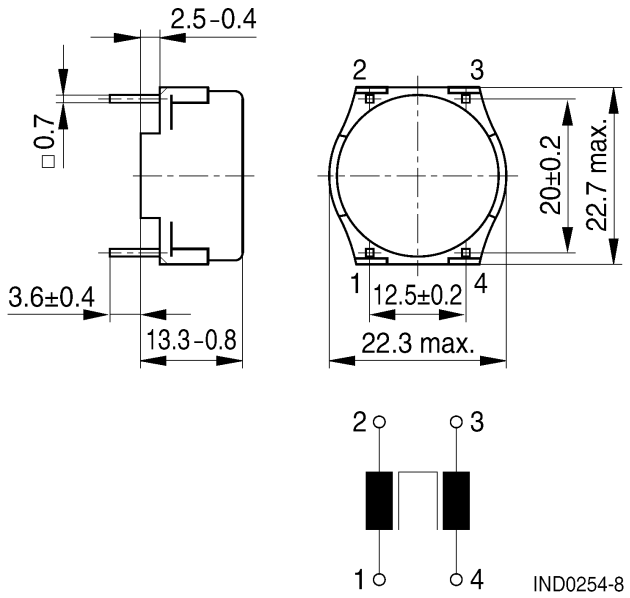
## Marking

- Product brand, VDE standard number, ordering code, graphic symbol, rated current, rated AC voltage, rated inductance, date of manufacture (YYWWD.internal ID code)

## Delivery mode

- Blistertray in cardboard box

## Dimensional drawing and pin configuration



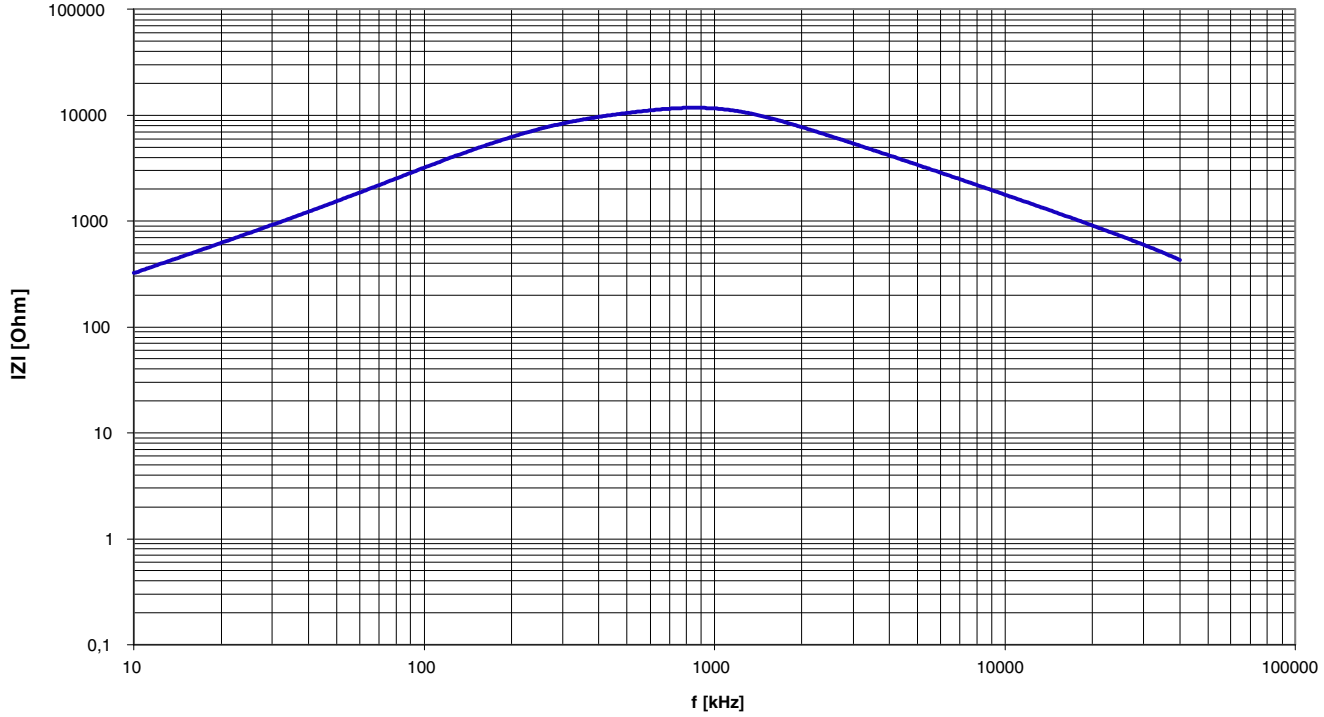

Tolerances to ISO 2768-cl / ISO 8015.
Size ISO 14405 Ⓔ
All dimensions in mm

## Technical data and measuring conditions

| | |
|---|---|
| Rated voltage $V_R$ | 250 V AC (50/60 Hz) |
| Test voltage $V_{test}$ | 1500 V AC, 2 s (line/line) |
| Rated temperature $T_R$ | +70 °C |
| Rated current $I_R$ | 2 A<br>Referred to 50 Hz and rated temperature |
| Rated inductance $L_R$ | 5.6 mH<br>Measured with Agilent 4284A at 10 kHz, 0.1 mA, +20 °C<br>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 $L_{stray,typ}$ | 35 µH<br>Measured with Agilent 4284A at 10 kHz, 5 mA, +20 °C, typical value |
| DC resistance $R_{typ}$ | 105 mΩ<br>Measured at +20 °C, typical value, specified per winding |
| Solderability (lead free) | Sn96.5Ag3.0Cu0.5: (+245 ±5) °C, (3 ±0.3) s<br>Wetting of soldering area ≥95%<br>(to IEC 60068–2–20, test Ta) |
| Resistance to soldering heat (wave soldering) | (+260 ±5) °C, (10 ±1) s<br>(to IEC 60068–2–20, test Tb) |
| Climatic category | 40/125/56<br>(to IEC 60068–1) |
| Storage conditions (packaged) | −25 °C ... +40 °C, ≤75% RH |
| Weight | Approx. 8.5 g |

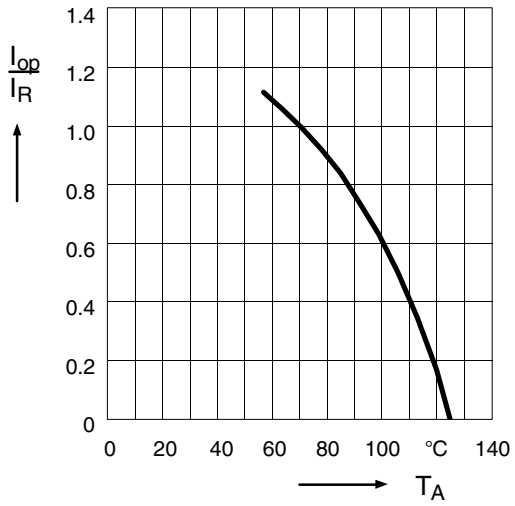
## Impedance |Z| versus frequency f

measured with windings in parallel at +20 °C, typical values




## Current derating $I_{op}/I_R$ versus temperature $T_A$

rated temperature = +70 °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.
  Washing processes may damage the product due to the possible static or cyclic mechanical loads (e.g. ultrasonic cleaning). They may cause cracks to develop on the product and its parts, which might lead to reduced reliability or lifetime.
- 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.

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