



## Storage inductor

Ring core choke with alloy powder core  
660  $\mu$ H, 11A / + 40 °C

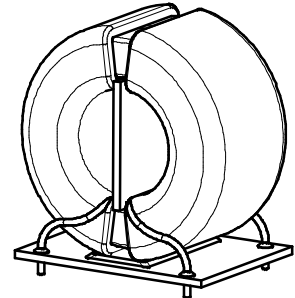
<b>Series/Type:</b>	
<b>Ordering code:</b>	<b>B82607S9113L010</b>
Date:	2020-03-25
Version:	01

**Rated current 11A / + 40 °C**

**Nominal inductance 660  $\mu$ H**

### Construction

- Ring core choke
- Alloy powder core with epoxy coating (UL 94 V-0)
- FR4 Base plate
- Glue



### Features

- Soft saturation behaviour
- High resonance frequency
- Suitable for wave soldering
- RoHS compatible

### Applications

- Storage choke
- Suppression of differential-mode interferences and harmonics

### Terminals

- Ends of winding wires
- Hot-dip tinned

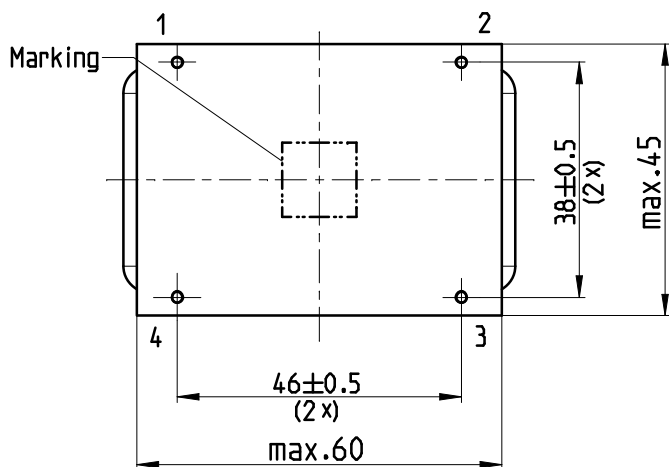
### Marking

- Product brand (EPCOS), ordering code, rated inductance, rated current, rated temperature, date of manufacture (YYWWD.internal ID code), production place identification code

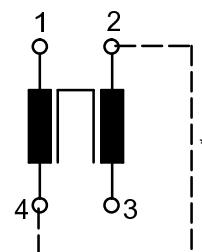
### Delivery mode

- Cardboard box

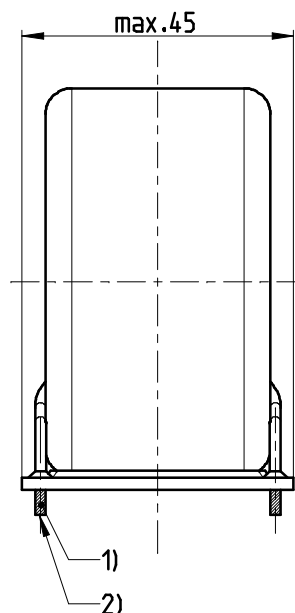
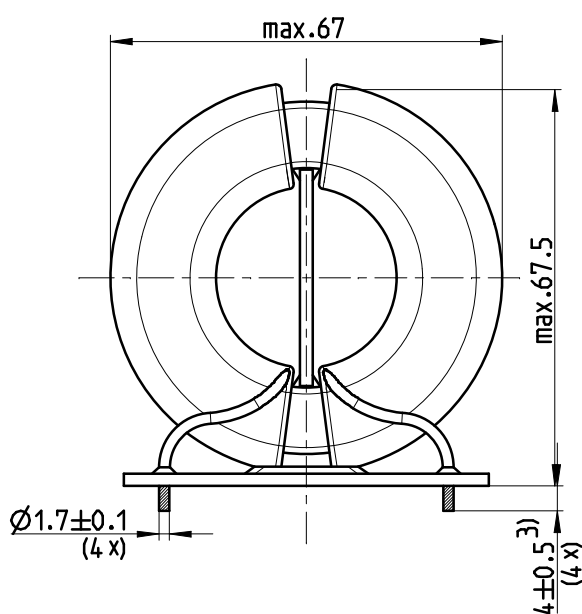
Dimensional drawing and pin configuration



No polarity

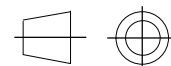


\*) Windings must be connected in series in application



- 1) terminals solderable tinned with Sn
- 2) tin tip permissible
- 3) tin tip is not part of this dimension

Part tolerances to ISO 2768-cL / ISO 8015  
 Size ISO 14405(E)  
 All dimensions in mm



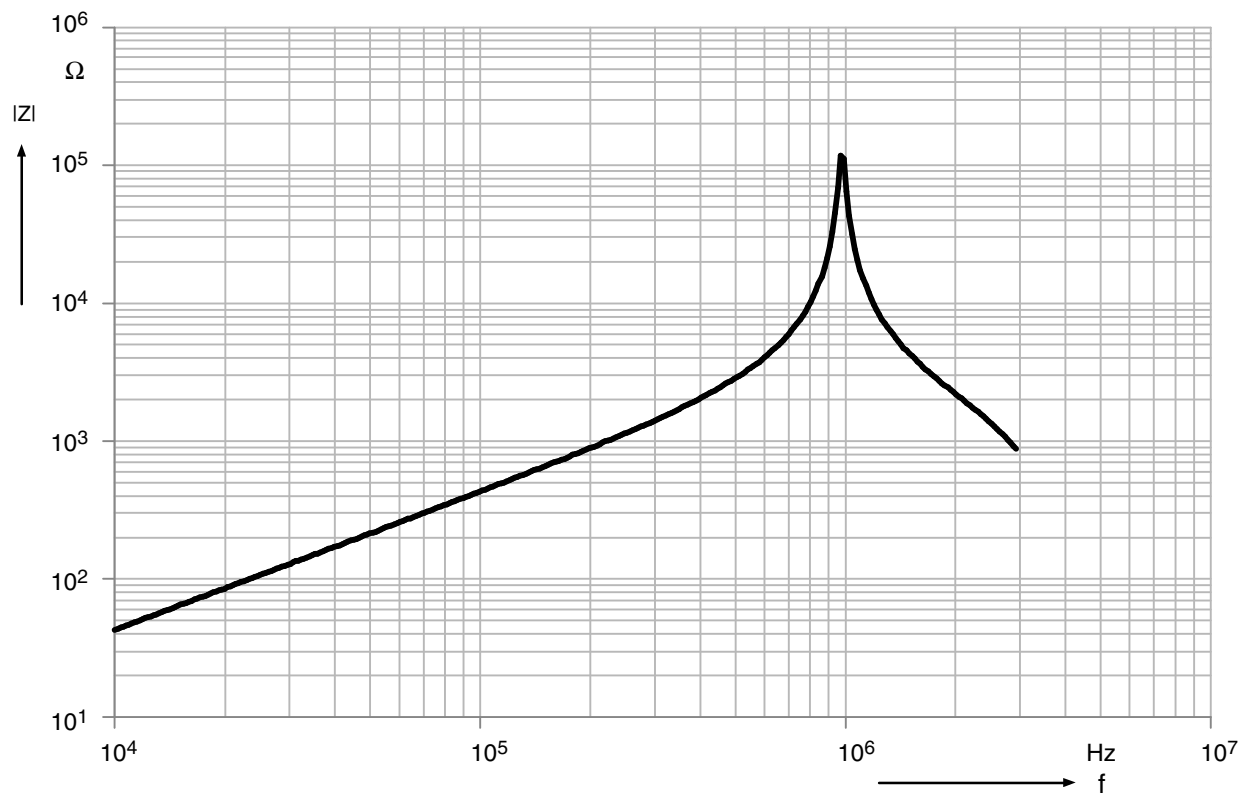
**Technical data and measuring conditions**

Rated temperature $T_R$	+ 40 °C
Rated current $I_R$	11A (free-air convection cooling) * Referred to 50 Hz and rated temperature
Rated current at + 70 °C $I_{R_70^\circ C}$	9.5 A Referred to 50 Hz and + 70 °C ambient temperature
Nominal inductance $L_N$	660 $\mu$ H (windings in series) Measured with Agilent 4284A at 100 kHz, 0.1 mA, + 20 °C, at zero DC current bias
Inductance tolerance	$\pm 15\%$ at + 20 °C
Inductance at DC current	555 $\mu$ H at 10 A DC (windings in series) 390 $\mu$ H at 20 A DC (windings in series) Measured at DC magnetic bias with with Agilent 4284A at 100 kHz, 0.1 mA, + 20 °C, typical value
DC resistance $R_{typ}$	35 m $\Omega$ Measured at + 20 °C, typical value, specified per winding
Solderability (lead free)	Sn96.5Ag3.0Cu0.5: (+ 245 $\pm 3$ ) °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. 420 g

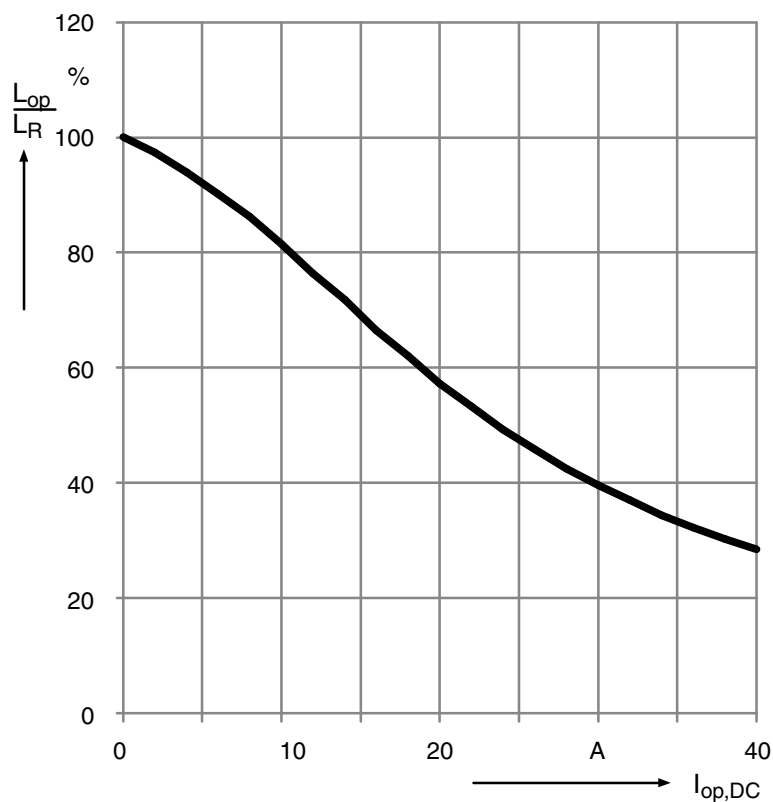
\* Current must be reduced when operating at higher ambient temperature than rated. See "Current derating" for details. Higher current can be applied by using an appropriate forced cooling approach. In any case, temperature of the coil is to be monitored and must not exceed the maximum value specified by the climatic category. The effect of magnetic saturation must be additionally considered when operated with higher current than specified.

**Impedance  $|Z|$  versus frequency  $f$**

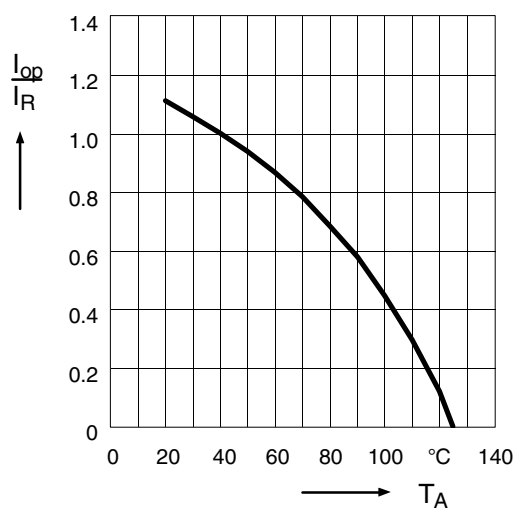
measured with windings in series at +20 °C, typical values



Relative inductance  $L_{op}/L_R$  versus DC operating current  $I_{op}$   
 measured with windings in series at +20 °C, typical values



Current derating  $I_{op}/I_R$  versus temperature  $T_A$   
 rated temperature = +40 °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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(2019-01)

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Release 2018–10