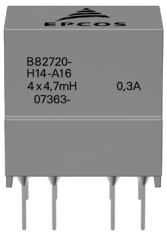
Data and signal line chokes

Common-mode chokes, ring core
4.7 … 10 mH, 200 … 300 mA, 40 °C

Series/Type: **B82720H14**

Date: October 2008

Rated voltage 42 V AC/80 V DC
Rated inductance 4.7 mH to 10 mH
Rated current 200 mA to 300 mA



Construction

- Current-compensated ring core double choke
- Ferrite core
- Polycarbonate case (UL 94 V-0)
- Polyurethane potting (UL 94 V-0)

Features

- Suitable for automatic insertion
- Suitable for wave soldering
- RoHS-compatible

Applications

- Telecom switching systems
- Terminal systems
- Measuring and control lines

Terminals

- Base material CuNi18Zn20
- Layer composition Ni, Sn
- Hot-dipped

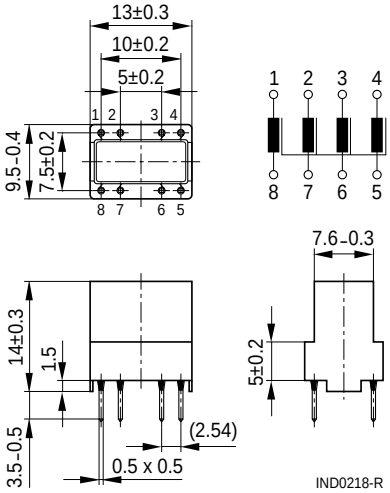
Marking

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

Delivery mode

Cardboard box

Dimensional drawing and pin configuration



Tolerances to ISO 2768-M
unless otherwise noted.

Dimensions in mm

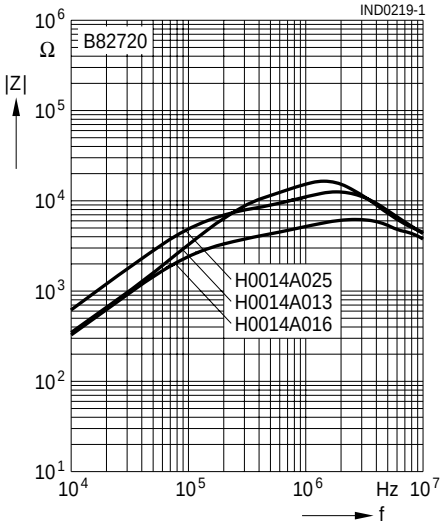
Technical data and measuring conditions

Rated voltage V_R	42 V AC (50/60 Hz) / 80 V DC
Rated temperature T_R	40 °C
Rated current I_R	Referred to 50 Hz and rated temperature
Rated inductance L_R	Measured with Agilent 4284A at 10 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 $L_{stray,typ}$	Measured with Agilent 4284A at 10 kHz, 5 mA, 20 °C, typical values
DC resistance R_{typ}	Measured at 20 °C, typical values
Solderability (lead-free)	Sn96.5Ag3.0Cu0.5: (245 ±5) °C, (3 ±0.3) s Wetting of soldering area ≥ 95% (to IEC 60068-2-20, 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. 2.3 g

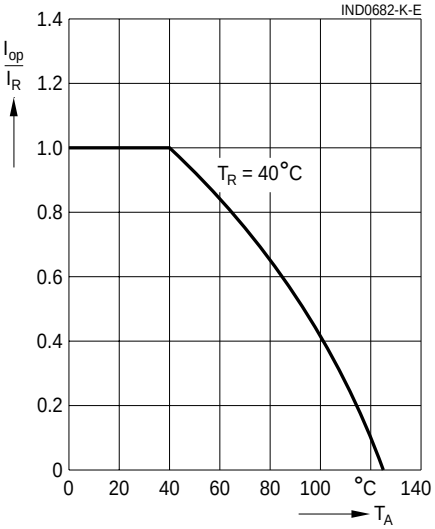
Characteristics and ordering codes

L_R mH	$L_{stray,typ}$ nH	I_R mA	R_{typ} mΩ	V_{test} V DC, 2 s	Ordering code
4.7	350	300	900	750	B82720H0014A016
5.0	400	300	550	750	B82720H0014A013
10	450	200	1300	750	B82720H0014A025

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



Current derating I_{op}/I_R versus ambient temperature



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.

Important notes

The following applies to all products named in this publication:

1. Some parts of this publication contain **statements about the suitability of our products for certain areas of application**. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out **that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application.**

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