



## Data and signal line chokes

Common-mode chokes, ring core  
4.7 ... 68 mH, 200 ... 700 mA, 40 °C

**Series/Type:**            **B82720H15**  
**Date:**                    October 2008

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## Data and signal line chokes

**B82720H15**

### Common-mode chokes, ring core

**Rated voltage 42 V AC/80 V DC**

**Rated inductance 4.7 mH to 68 mH**

**Rated current 200 mA to 700 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

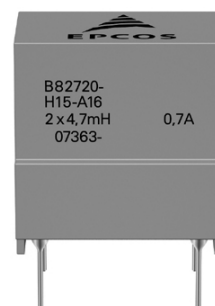
- Base material CuNi18Zn20
- Layer composition Ni, Sn
- Hot-dipped
- Lead spacing 10 × 7.5 (mm)

#### Marking

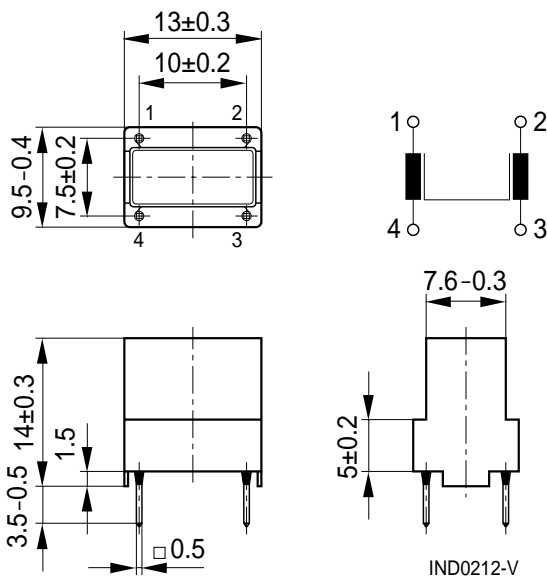
Manufacturer, ordering code, rated inductance, rated current, date of manufacture (YYWWD)

#### Delivery mode

Cardboard box



## Dimensional drawing and pin configuration



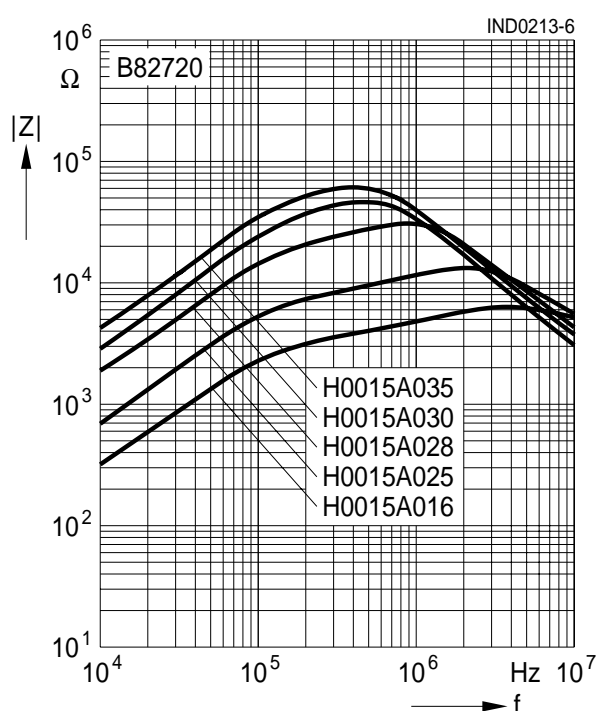
## Technical data and measuring conditions

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 $L_{\text{stray,typ}}$	Measured with Agilent 4284A at 10 kHz, 5 mA, 20 °C, typical values
DC resistance $R_{\text{typ}}$	Measured at 20 °C, typical values, specified per winding
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. 2.1 g

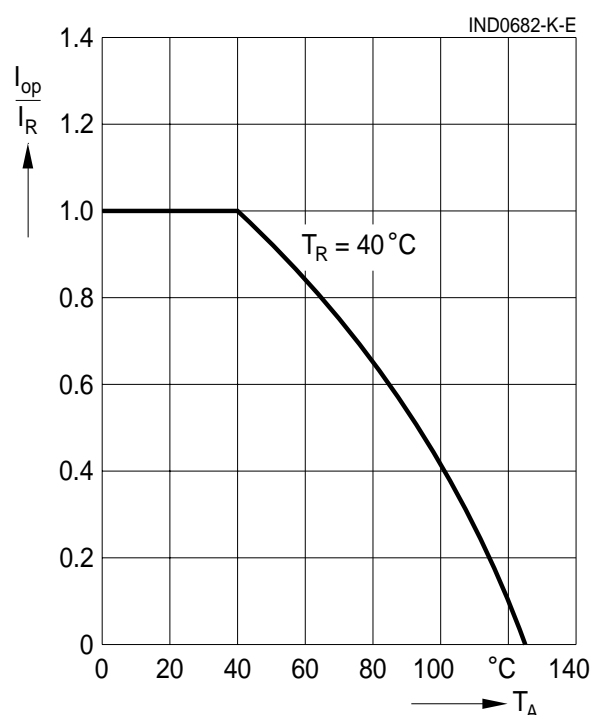
# Characteristics and ordering codes

$L_R$ mH	$L_{\text{stray, typ}}$ nH	$I_R^{1)}$ mA	$R_{\text{typ}}$ m $\Omega$	$V_{\text{test}}$ V DC, 2 s	Ordering code
4.7	300	700	500	750	B82720H0015A016
10	400	600	700	750	B82720H0015A025
28	700	400	1200	750	B82720H0015A028
47	1000	300	2700	750	B82720H0015A030
68	1200	200	3300	750	B82720H0015A035

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



**Current derating  $I_{\text{op}}/I_R$**   
**versus ambient temperature**



1) Types with higher rated current on request.

## 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.

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