

Data and signal line chokes

Common-mode chokes, ring core
2.2 ... 47 mH, 100 mA, +60 °C

Series/Type: **B82791G15/H15**

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Data and signal line chokes

B82791G15/H15

Common-mode chokes, ring core

Rated voltage 42 V AC/80 V DC

Rated inductance 2.2 mH to 47 mH

Rated current 100 mA

Construction

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

Features

- Without potting
- Vertical or horizontal version
- Suitable for wave soldering
- RoHS-compatible

Application

Suppression of asymmetrical interference coupled in on data lines, already effective at 10 kHz, e.g. in:

- Telephone lines (analog, ISDN)
- Interfaces with symmetrical data transmission
- Building services automation (EIB bus)
- Automation engineering

Terminals

- Base material CuNi18Zn20
- Layer composition Ni, Sn
- Hot-dipped
- Lead spacing 10 × 15 (mm) or 12.7 × 5.08/2.54 (mm)

Marking

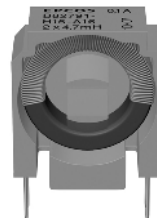
Manufacturer, ordering code, rated inductance, rated current, graphic symbol (for B82791G15), date of manufacture (MMYY)

Delivery mode

Cardboard box



B82791G15



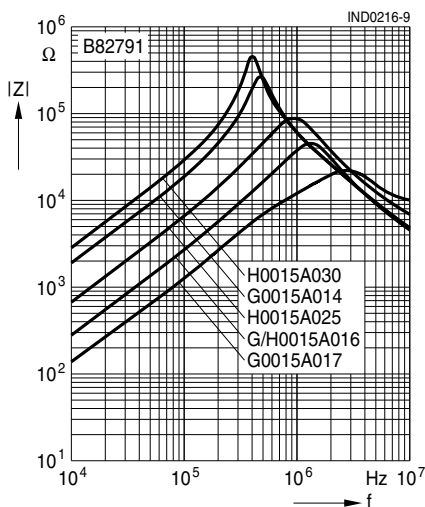
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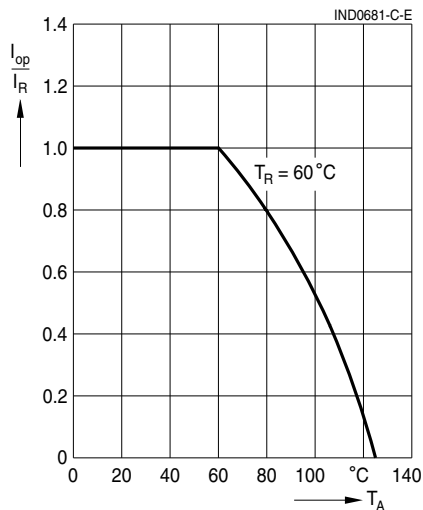
Characteristics and ordering codes

L_R mH	$L_{\text{stray, typ}}$ nH	I_R mA	R_{typ} m Ω	V_{test} V DC, 2 s	Ordering code	
					horizontal version	vertical version
2.2	500	100	300	1200	B82791G0015A017	—
4.7	900	100	850	1200	B82791G0015A016	B82791H0015A016
10	1200	100	1200	1200	—	B82791H0015A025
38	3300	100	5000	750	B82791G0015A014	—
47	2100	100	5100	750	—	B82791H0015A030

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

Current-compensated ring core double chokes

- 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 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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