

Power line chokes

Current-compensated ring core double chokes 250 V AC, 0.5 ... 6 A, 1 ... 56 mH

Series/Type: B82723A/J

Date: October 2008



Current-compensated ring core double chokes

Rated voltage 250 V AC Rated current 0.5 A to 6 A Rated inductance 1 mH to 56 mH

Construction

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

Features

- High resonance frequency due to special winding technique
- Approx. 1% 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
- Electronic ballasts in lamps
- Switch-mode power applications

Terminals

- Base material CuNi18Zn20
- Layer composition Ni, Sn
- Hot-dipped
- Pins 0.7×0.7 (mm)
- Lead spacing 15×12.5 (mm) or 25×15 mm

Marking

Manufacturer, approval signs and/or VDE standard number, ordering code, graphic symbol, rated current, rated voltage, rated inductance, date of manufacture (YYWWD)

Delivery mode

Blister tray in cardboard box



B82723A



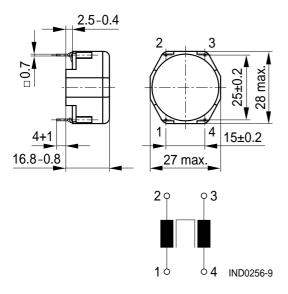
B82723J



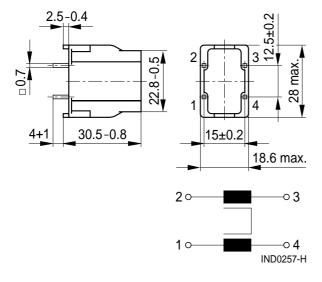
Current-compensated ring core double chokes

Dimensional drawings and pin configurations

Horizontal version (B82723A)



Vertical version (B82723J)



Tolerances to ISO 2768-C unless otherwise noted.

Dimensions in mm



Current-compensated ring core double chokes

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	40 °C / 60 °C / 70 °C		
Rated current I _R	Referred to 50 Hz and rated temperature		
Rated inductance L _R	Measured with Agilent 4284A at 0.1 mA, 20 °C Measuring frequency: $L_R \le 1$ mH = 100 kHz $L_R > 1$ mH = 10 kHz Inductance is specified per winding.		
Inductance tolerance	±30% at 20 °C		
Inductance decrease ΔL/L ₀	< 10% at DC magnetic bias with I _R , 20 °C		
Stray inductance L _{stray,typ}	Measured with Agilent 4284A at 5 mA, 20 °C, typical values		
DC resistance R _{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 $\geq 95\%$ (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. 18 g		
Approvals	EN 60938-2, UL 1283		



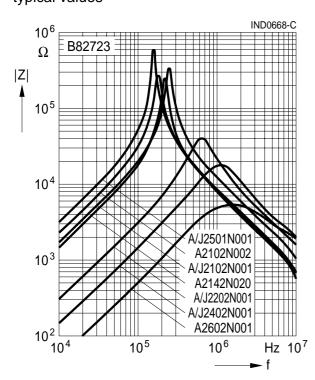
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Characteristics and ordering codes

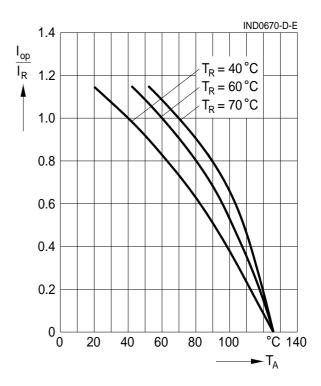
I_R	L _R	L _{stray,typ}	R _{typ}	T _R	Ordering code		Approvals	
Α	mH	μΗ	mΩ	°C	Horizontal version	Vertical version	<u>ŵ</u>	<i>7</i> .1
0.5	56	800	2100	60	B82723A2501N001	B82723J2501N001	×	×
1.0	39	430	750	40	B82723A2102N002	_	_	_
1.0	27	440	750	60	B82723A2102N001	B82723J2102N001	×	×
1.4	27	270	440	40	B82723A2142N020	_	_	_
2.0	5.6	70	160	60	B82723A2202N001	B82723J2202N001	×	×
4.0	2.7	30	60	60	B82723A2402N001	B82723J2402N001	×	×
6.0	1.0	12	22	70	B82723A2602N001	_	_	_

 \times = approval granted

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



Current derating I_{op}/I_R versus ambient temperature T_A





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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