

Power line chokes

Current-compensated ring core double chokes 250 V AC, 1.2 ... 68 mH, 0.3 ... 3 A, +40 °C / +60 °C

Series/Type: B82722A/J

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Current-compensated ring core double chokes

Rated voltage 250 V AC Rated inductance 1.2 ... 68 mH Rated current 0.3 ... 3 A / +40 °C, +60 °C

Construction

- Current-compensated ring core double choke
- Ferrite core wih epoxy coating (UL 94 V-0)
- Plastic case with in-molded pins (UL 94 V-0)¹)
- 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) and UL 1283
- UL²⁾ and/or ENEC (VDE) approvals
 4
- RoHS-compatible

Applications

- Suppression of common-mode interferences
- Switch-mode power applications
- Electronic ballasts in lamps
- Power inverters

Terminals

- Base material CuNi18Zn20
- Laver composition Ni. Sn
- Hot-dipped
- Pins 0.7×0.7 (mm)
- Lead spacing 10 × 12.5 (mm) or 20 × 12.5 (mm)

Marking

Product brand, approval signs and VDE standard number, ordering code, graphic symbol, rated current, rated voltage, rated inductance, date of manufacture (YYWWD.internal ID code)

Delivery mode

Blister tray in cardboard box

- 1) Additionally certified values: Glow wire flammability index (GWFI to IEC 60695-2-12): Glow wire ignition temperature (GWIT to IEC 60695-2-13): +775 °C Comparative tracking index (CTI to IEC 60112):
 - Ball pressure test (BP to IEC 60695-10-2): +125 °C
- 2) UL approval with 300 V AC



B82722A



B82722J

+850 °C

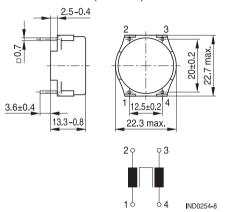
175 V



Current-compensated ring core double chokes

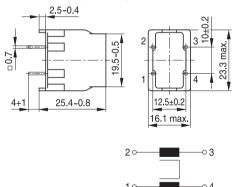
Dimensional drawings and pin configurations

Horizontal version (B82722A)



Part tolerances to ISO 2768-cL / ISO 8015. Size ISO 14405 © All dimensions in mm

Vertical version (B82722J)



Part tolerances to ISO 2768-cL / ISO 8015. Size ISO 14405 © All dimensions in mm

IND0255-W



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 or +60 °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% at +20 °C		
Inductance decrease ΔL/L ₀	${}_{\rm C} \Delta L/L_0$ < 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, 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 ±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. 10 g		
Approvals	IEC/EN 60938-2, UL 1283 (E70122)		



Current-compensated ring core double chokes

Characteristics and ordering codes

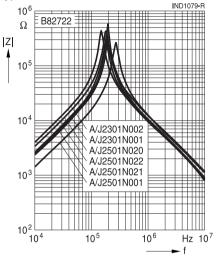
I_R	L _R	L _{stray,typ}	R_{typ}	T_R	Ordering code		Approvals	
A	mH	μΗ	mΩ	°C	Horizontal version	Vertical version		71
0.3	68	800	2500	+60	B82722A2301N002	B82722J2301N002	×	×
0.3	47	700	2500	+60	B82722A2301N001	B82722J2301N001	×	×
0.5	56	600	2000	+40	B82722A2501N020	B82722J2501N020	×	×
0.5	47	550	1500	+60	B82722A2501N022	B82722J2501N022	×	×
0.5	39	400	1120	+60	B82722A2501N021	B82722J2501N021	×	×
0.5	27	350	1200	+60	B82722A2501N001	B82722J2501N001	×	×
8.0	27	270	600	+60	B82722A2801N020	B82722J2801N020	×	×
1.0	15	170	540	+60	B82722A2102N020	B82722J2102N020	×	×
1.0	10	150	480	+60	B82722A2102N001	B82722J2102N001	×	×
1.5	10	90	240	+60	B82722A2152N020	B82722J2152N020	×	×
1.3	6.8	90	230	+60	B82722A2132N001	B82722J2132N001	×	×
1.7	4.0	45	175	+60	B82722A2172N001	B82722J2172N001	×	×
2.0	4.2	45	130	+40	B82722A2202N020	B82722J2202N020	×	×
2.0	3.3	35	133	+60	B82722A2202N002	B82722J2202N002	×	×
2.0	2.2	30	130	+60	B82722A2202N001	B82722J2202N001	×	×
2.5	1.7	20	80	+60	B82722A2252N001	B82722J2252N001	×	×
3.0	1.2	17	56	+60	B82722A2302N001	B82722J2302N001	×	×

x = approval granted

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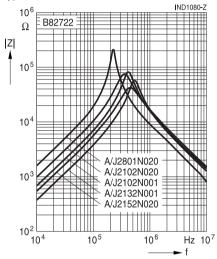
Impedance |Z| versus frequency f

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



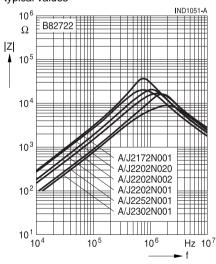
Impedance |Z| versus frequency f

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

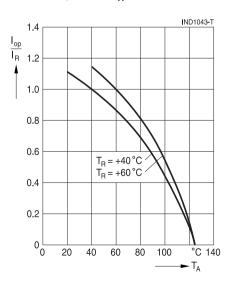


Impedance |Z| versus frequency f measured with windings in parallel at +20 °C,

measured with windings in parallel at +20 °C typical values



Current derating I_{op}/I_R versus 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.
 - 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 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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