



Power line chokes

Current-compensated frame core double chokes
250 V AC, 0.45 ... 1.6 A, 10 ... 100 mH, +40 °C

Series/Type: **B82732F**

Date: March 2021

Rated voltage 250 V AC

Rated current 0.45 ... 1.6 A (+40 °C)


Rated inductance 10 ... 100 mH

Construction

- Current-compensated frame core double choke
- Closed magnetic circuit with frame construction made of ferrite
- Plastic coil former (UL94 V-0)
- 4-section winding with direct winding on the core
- Sector winding
- Clearance and creepage distances >3 mm



Features

- High inductance with low resistance
- Approx. 2% stray inductance for symmetrical interference suppression
- High pulse-handling capability
- Very good inductance/rated current ratio
- Low height (13.5 mm)
- Suitable for wave soldering
- Design complies with EN 60938-2 (VDE 0565-2) and UL 1283
- ENEC (VDE) and UL¹⁾ approval 
- RoHS-compatible

Applications

- Suppression of common-mode and differential-mode interferences
- Electronic ballasts for lamps
- Compact switch-mode power supplies for consumer electronics

Terminals

- Base material CP wire
- Hot dipped
- Pins 0.7 × 0.7 mm
- Lead spacing 10 × 18.75 mm

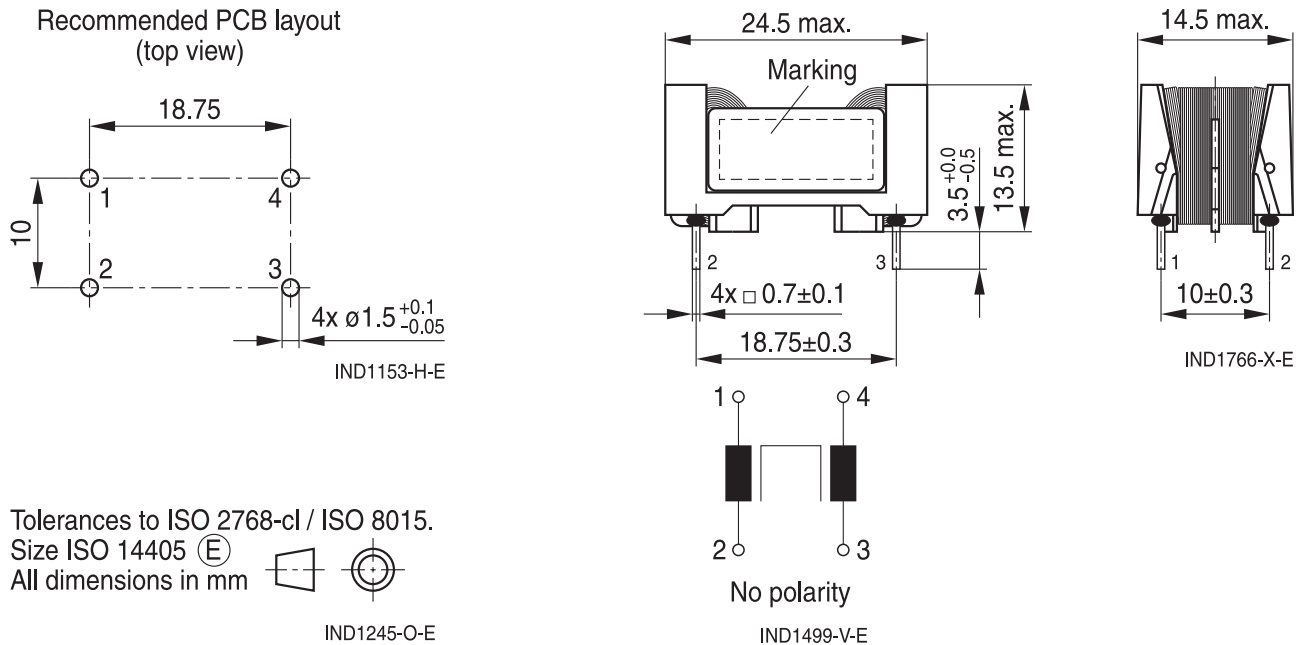
Marking

Product brand, date of manufacture (YYWWD), production place identification code, ordering code, approval signs

Delivery mode

Blister tray (anti-static) in cardboard box

1) UL approval with 300 V AC

Dimensional drawing and layout recommendation

Technical data and measuring conditions

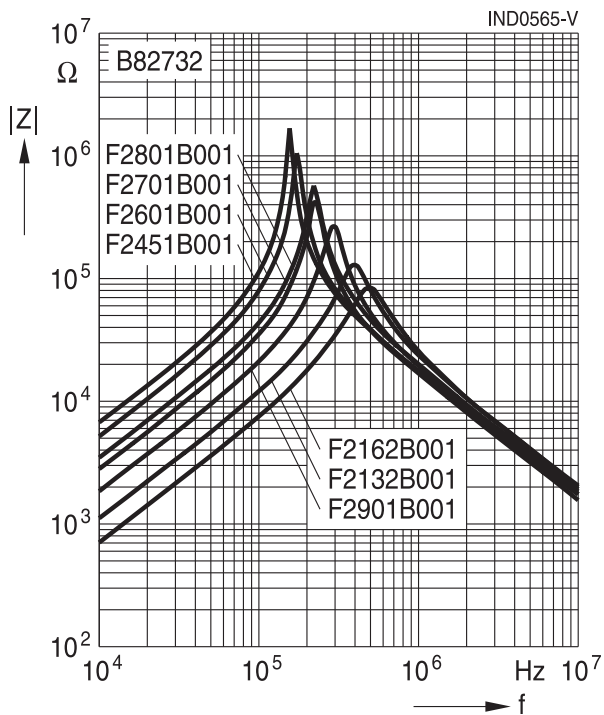
Rated voltage V_R	250 V AC (50/60 Hz)
Test voltage V_{test}	2000 V AC, 2 s (line/line)
Rated temperature T_R	+40 °C
Rated current I_R	Referred to 50 Hz and rated temperature
Rated inductance L_R	Measured with Agilent 4284A at 10 kHz, 0.1 mA, +20 °C. Inductance is specified per winding.
Inductance tolerance	-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, 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. 10 g
Approvals	EN 60938-2, UL 1283

Characteristics and ordering codes

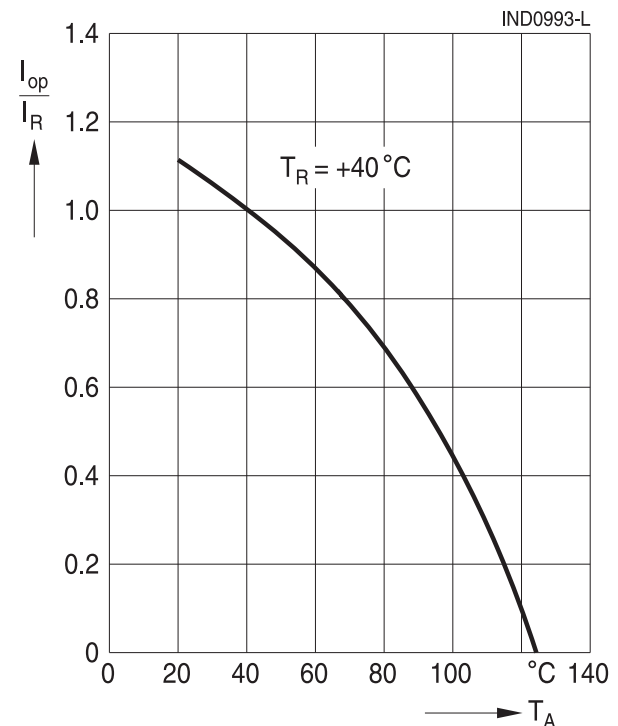
I_R A	L_R mH	$L_{\text{stray,typ}}$ μH	R_{typ} $\text{m}\Omega$	Ordering code	Approvals	
0.45	100	1930	2930	B82732F2451B001	×	×
0.6	68	1340	1970	B82732F2601B001	×	×
0.7	47	920	1260	B82732F2701B001	×	×
0.8	39	760	1100	B82732F2801B001	×	×
0.9	27	520	770	B82732F2901B001	×	×
1.3	15	290	430	B82732F2132B001	×	×
1.6	10	200	290	B82732F2162B001	×	×

× = 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.
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, wire insulation, plastics or glue.
 - The effect of the potting material can change the high-frequency behaviour of the components.
 - Many coating materials have a negative effect (chemically and mechanically) on the winding wires, insulation materials and connecting points. Customers are always obligated to determine whether and to what extent their coating materials influence the component.
Customers are responsible and bear all risk for the use of the coating material. TDK Electronics does not assume any liability for failures of our components that are caused by the coating material.
- Ceramics / 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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3. **The warnings, cautions and product-specific notes must be observed.**
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Important notes

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