



## **Power line chokes**

Current-compensated D core double chokes  
250 V AC, 0.4 ... 2.2 A, 3.3 ... 100 mH

**Series/Type:**            **B82732R/W**


**Date:**                    **October 2008**

**Rated voltage 250 V AC**  
**Rated current 0.4 A to 2.2 A**  
**Rated inductance 3.3 mH to 100 mH**

### Construction

- Current-compensated double choke
- Closed rectangular ferrite core
- Closed polycarbonate coil former (UL 94 V-0)
- Without encapsulation
- 2-section winding
- Clearance and creepage distances > 3 mm

### Features

- High resonance frequency due to 2-section winding
- Approx. 1% stray inductance for symmetrical interference suppression
- Low leakage due to closed core shape
- High pulse strength
- Low whirring noise
- Suitable for wave soldering
- Design complies with EN 60938-2 (VDE 0565-2)
- UL and VDE approvals 
- Recyclable owing to omission of encapsulation and glue
- RoHS-compatible

### Applications

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

### Terminals

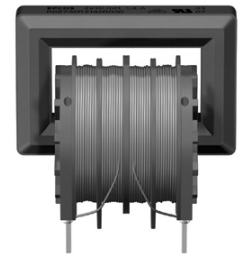
- Base material CuNi18Zn20
- Layer composition Ni, Sn
- Hot-dipped
- Pins 0.6 × 0.6 (mm)
- Lead spacing 10 × 12.5 (mm)

### Marking

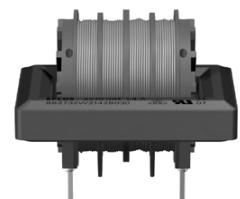
Manufacturer, rated inductance, rated current, ordering code, approval symbols, date of manufacture (WWYY)

### Delivery mode

Blister tray in cardboard box



B82732R

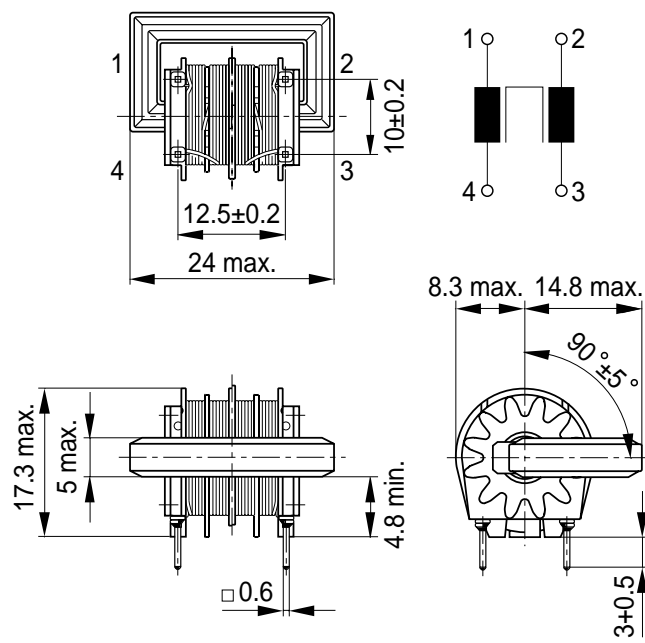
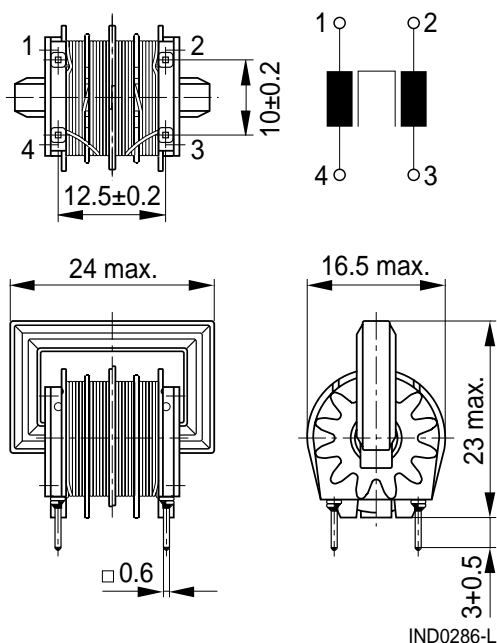


B82732W

**Dimensional drawings and pin configuration**

Vertical version (B82732R)

Horizontal version (B82732W)




 Tolerances to ISO 2768-C  
 unless otherwise noted.

Dimensions in mm

**Technical data and measuring conditions**

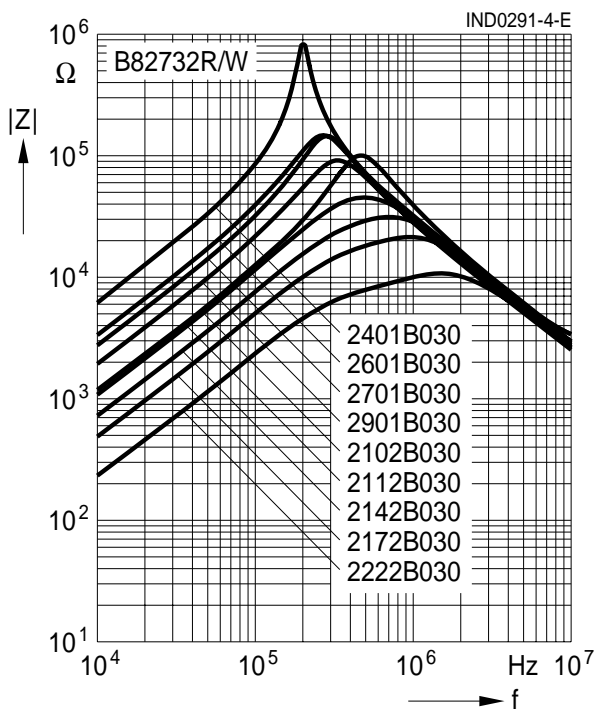
Rated voltage $V_R$	250 V AC (50/60 Hz)
Test voltage $V_{test}$	1500 V AC, 2 s (line/line)
Rated temperature $T_R$	40 °C
Rated current $I_R$	Referred to 50 Hz and rated temperature
Rated inductance $L_R$	Measured with Agilent 4284A at 0.1 mA, 20 °C, 10 kHz. Inductance is specified per winding.
Inductance 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, typ. 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. 11 g
Approvals	EN 60938-2, UL 1283

**Characteristics and ordering codes**

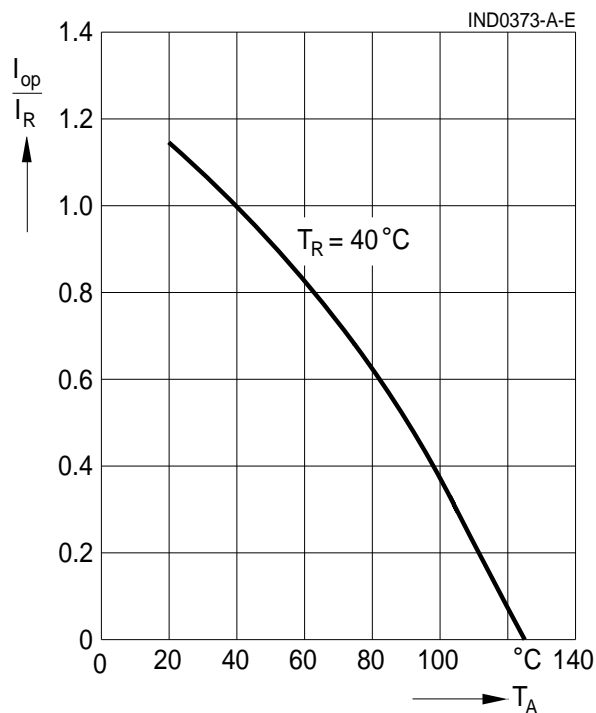
$I_R$ A	$L_R$ mH	$L_{\text{stray,typ}}$ $\mu\text{H}$	$R_{\text{typ}}$ m $\Omega$	Ordering code		Approvals	
				Vertical version	Horizontal version		
0.4	100	850	3000	B82732R2401B030	B82732W2401B030	—	—
0.6	47	400	1400	B82732R2601B030	B82732W2601B030	×	×
0.7	39	330	1100	B82732R2701B030	B82732W2701B030	×	×
0.9	27	230	750	B82732R2901B030	B82732W2901B030	×	×
1.0	22	165	580	B82732R2102B030	B82732W2102B030	—	—
1.1	15	125	440	B82732R2112B030	B82732W2112B030	×	×
1.4	10	85	300	B82732R2142B030	B82732W2142B030	×	×
1.7	6.8	55	190	B82732R2172B030	B82732W2172B030	×	×
2.2	3.3	27	110	B82732R2222B030	B82732W2222B030	×	×

× = approval granted

**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  $T_A$**



## 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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