



SMT–Power–Inductors

Size 10x10x4,8 mm

Datasheet

Ordering code: **B82464Z4XXM000**

Date: 2007–06–11

Version: 01

Rated inductance 0,82 μ H .. 1000 μ H

Construction

- Ferrite core
- Magnetically shielded
- Winding: enamel copper wire
- Winding soldered to terminals

Features

- Wide temperature range
- Very high rated current
- Low DC resistance
- Suitable for leadfree reflow soldering

Applications

- Filtering of supply voltages
- Coupling, decoupling
- DC/DC converters
- Telecom, EDP, consumer electronics

Terminals

- Leadfree tinned

Marking

Marking on component:

Manufacturer

L value (in μ H) and tolerance (coded)

date of manufacture (coded)

Minimum marking on reel:

Manufacturer, part number, ordering code,

L value and tolerance

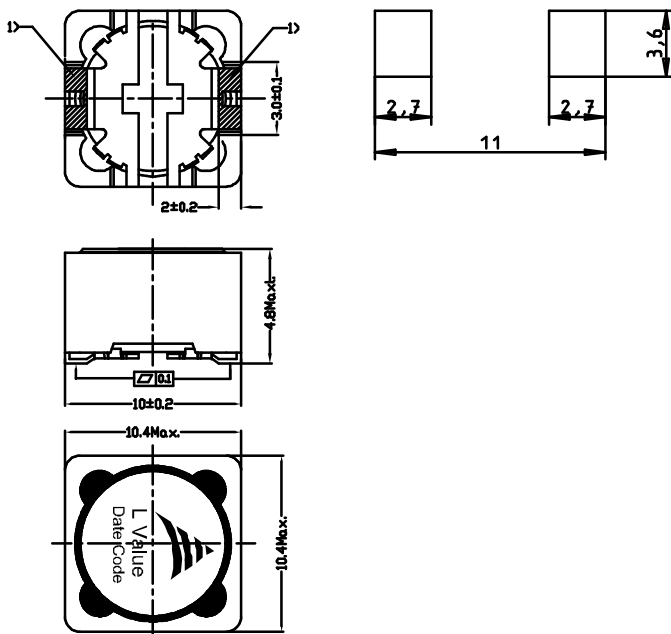
quantity, date of packing

Delivery mode

Blister tape 16mm, reel packing ϕ 330mm
packaging quantity 750 pcs per reel

General technical data

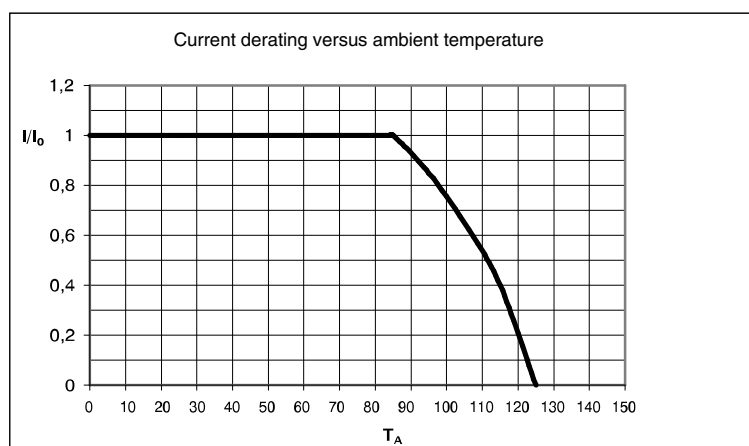
Rated inductance L_R	Measured with HP 4294A, measuring voltage 100 mV
Rated current I_R	Maximum permissible DC with temperature increase of ≤ 40 K at ambient temperature of 85 °C
Saturation current	Maximum permissible DC with inductance decrease $\Delta L/L_0 \approx 10\%$
Self-resonance frequency f_{res}	Typical self-resonance frequency measured with network analyzer HP 8753
Climatic category	In accordance with IEC 60068-1 55/125/56 (-55 °C/ +125 °C/ 56 days damp heat test)
Solderability	5s, 235°C, wetting > 90%
Reflow conditions	260°C, 10s
DC resistance R_{max}	Measured at 20 °C ambient temperature
Weight	Approx. 2g

Dimensional drawing and layout recommendation


1) Soldering area

Characteristics and ordering codes

L_R μH	f_L MHz	Tolerance	I_{sat} A	I_R A	R_{max} Ω	Ordering code
0,82	0,1	20 %	10,3	7,60	0,007	B82464Z4821M000
1,0	0,1	20 %	10	7,50	0,007	B82464Z4102M000
1,5	0,1	20 %	8,50	7,00	0,009	B82464Z4152M000
2,2	0,1	20 %	7,00	6,50	0,010	B82464Z4222M000
3,3	0,1	20 %	5,90	5,50	0,012	B82464Z4332M000
4,7	0,1	20 %	5,20	4,90	0,015	B82464Z4472M000
6,8	0,1	20 %	4,30	4,30	0,020	B82464Z4682M000
10	0,1	20 %	3,50	3,40	0,030	B82464Z4103M000
15	0,1	20 %	2,95	2,75	0,040	B82464Z4153M000
22	0,1	20 %	2,50	2,25	0,052	B82464Z4223M000
33	0,1	20 %	2,00	1,85	0,075	B82464Z4333M000
47	0,1	20 %	1,70	1,55	0,095	B82464Z4473M000
68	0,1	20 %	1,35	1,30	0,13	B82464Z4683M000
100	0,1	20 %	1,10	1,05	0,22	B82464Z4104M000
150	0,1	20 %	0,90	0,85	0,32	B82464Z4154M000
220	0,1	20 %	0,75	0,70	0,44	B82464Z4224M000
330	0,1	20 %	0,61	0,59	0,65	B82464Z4334M000
470	0,1	20 %	0,52	0,50	0,93	B82464Z4474M000
680	0,1	20 %	0,43	0,42	1,30	B82464Z4684M000
1000	0,1	20%	0,35	0,34	2,20	B82464Z4105M000



Caution and warnings

- Please note the advices in our data book “Chokes and Inductors” (latest edition); attention should be paid to the chapter “General safety notes”.
 - Particular attention should be paid to the derating curves given there.
 - The soldering conditions given there 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, it is necessary to check whether any washing 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 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:
 - Many potting materials shrink as they harden. They therefore exert a pressure on the core. This pressure can have a deleterious effect on electrical properties, and in extreme cases can damage the core mechanically.
 - It is necessary to check whether the potting material used attacks or destroys the wire insulation.
 - 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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