

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Transponder coils

Size 11.4 × 3.5 × 2.4 mm

Series/Type: Ordering code: B82450H

B82450H2364A000

Date: June 2012

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Transponder coils

Size 11.4 × 3.5 × 2.4 mm

B82450H2364A000

B82450H

Rated inductance: 2.36 mH Sensitivity: 30 mV/µT



Construction

- Ferrite core
- Winding: enamel copper wire welded to terminals
- Flame-retardant molding

Features

- Robust construction for a high mechanical stability when exposed to shock, drop and bending tests
- High sensitivity
- High quality factor
- Qualified to AEC-Q200
- Suitable for pick and place and AOI (automatic optical inspection)
- Suitable for lead-free reflow soldering as referenced in JEDEC J-STD 020D
- RoHS-compatible

Applications

- Car access systems
 - immobilizer
 - PEPS (passive entry, passive start)
- TPMS (Tire Pressure Monitoring Systems)

Terminals

- Base material CuSn6
- Layer composition Ni, Sn electro-plated

Marking

Marking on component:

Manufacturer, L-value (nH, coded), letter "A", date of manufacture (YWWD, coded), last five digits of lot number, internal information

Minimum data on reel:

Manufacturer, ordering code, L value, quantity, date of packing

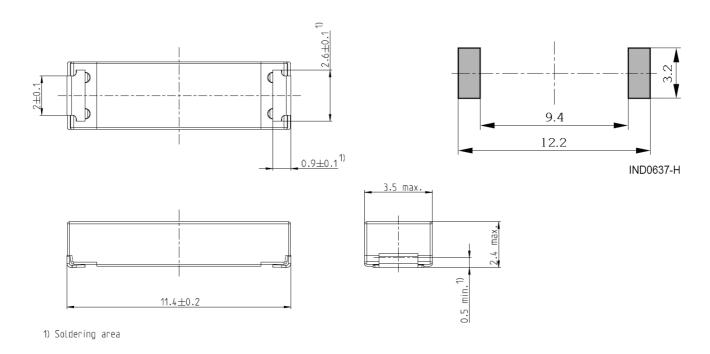
Delivery mode and packing unit

- 24 mm blister tape, wound on 330 mm Ø reel
- Packing unit: 2500 pcs./ree

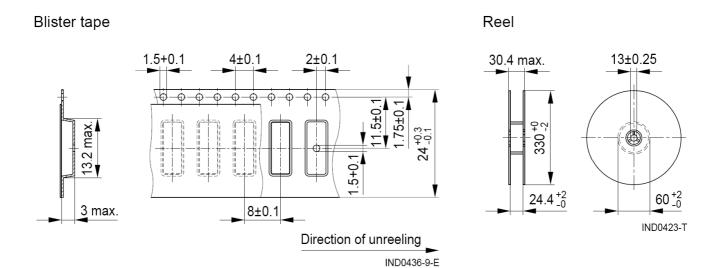
Size 11.4 × 3.5 × 2.4 mm

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Dimensional drawing and layout recommendation



Taping and packing



Dimensions in mm

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Technical data and measuring conditions

Rated inductance L _R	Measured with Agilent 4294A and test fixture				
	Agilent 16034 at frequency f _L , RMS voltage 500 mV, +20 °C				
Q factor Q _{min}	Measured with Agilent 4294A and test fixture Agilent 16034				
	at frequency f _Q , RMS voltage 500 mV, +20 °C				
Sensitivity S _{typ}	Measured with Helmholtz coil test setup at 125 kHz				
Resonance frequency f _{res}	Measuring with network analyzer Agilent 8753D, +20 °C				
DC resistance R _{max}	Measured at +20 °C				
Solderability (lead-free)	Sn95.5Ag3.8Cu0.7: +(245±5) °C, 3 s				
	wetting of soldering area ≥ 90%				
	(based on IEC 60068-2-58)				
Resistance to soldering heat	+260 °C, 40 s (as referenced in JEDEC J-STD 020D)				
Climatic category	40/125/56 (to IEC 60068-1)				
Storage conditions	Mounted: -40 °C+125 °C				
	Packaged: -25 °C+40 °C, ≤ 75% RH				
Weight	Approx. 0.32 g				

Characteristics and ordering codes

L _R	L	f_L, f_Q	Q _{min}	S _{typ}	R _{max}	F _{res}	Ordering code
mH	Tolerance	kHz		$\frac{\text{mV}}{\mu \text{T}}$	Ω	MHz	
2.36	±3%	125	55	30	25	> 2.0	B82450H2364A000



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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.

June 2012



Important notes

The following applies to all products named in this publication:

- 1. Some parts of this publication contain statements about the suitability of our products for certain areas of application. These statements are based on our knowledge of typical requirements that are often placed on our products in the areas of application concerned. We nevertheless expressly point out that such statements cannot be regarded as binding statements about the suitability of our products for a particular customer application. As a rule, EPCOS is either unfamiliar with individual customer applications or less familiar with them than the customers themselves. For these reasons, it is always ultimately incumbent on the customer to check and decide whether an EPCOS product with the properties described in the product specification is suitable for use in a particular customer application.
- 2. We also point out that in individual cases, a malfunction of electronic components or failure before the end of their usual service life cannot be completely ruled out in the current state of the art, even if they are operated as specified. In customer applications requiring a very high level of operational safety and especially in customer applications in which the malfunction or failure of an electronic component could endanger human life or health (e.g. in accident prevention or life-saving systems), it must therefore be ensured by means of suitable design of the customer application or other action taken by the customer (e.g. installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of malfunction or failure of an electronic component.
- 3. The warnings, cautions and product-specific notes must be observed.
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