



ERU chokes

ERU 20, helically wound

Series/Type: B82559*A020

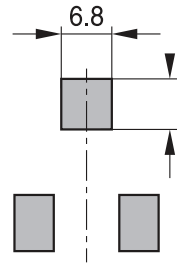
Date: August 2018

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Dimensional drawing and layout recommendation



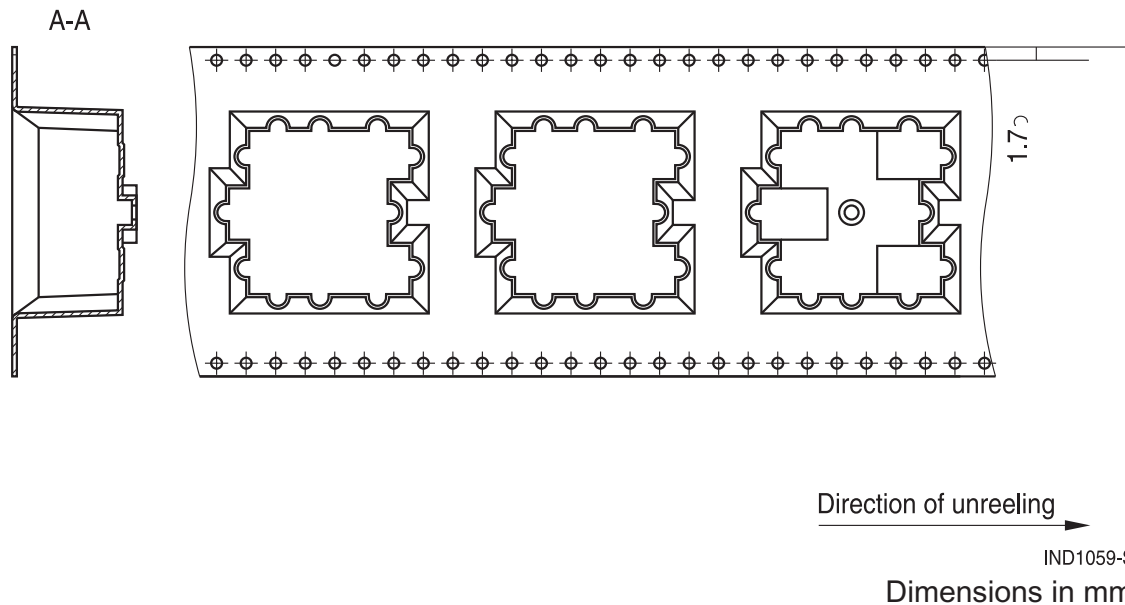
IND1057-H

Dimensions in mm

Circuit diagram

Taping and packing

Tape:



Reel:

Height (mm)		Packing unit per reel
component h	cavity H	
9.8	12.5	130
10.7	12.5	130
12.1	13.9	115
14.1	15.9	100

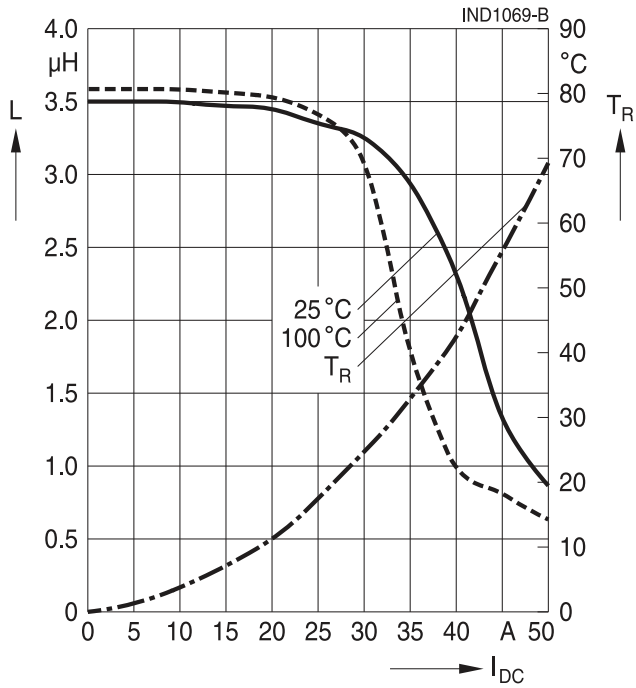
SMD
Technical data and measuring conditions

Rated inductance L_R	Measured at 100 kHz, 0.1 V, +25 °C
Inductance tolerance	±10%
Saturation current I_{Sat}	Current that will result in an approximately 10% drop in the inductance values at the specified temperature
DC resistance R_{DC}	Measured at +25 °C
Self-resonant frequency	> 2 MHz
High voltage: N1 - core	200 V DC, 1 s
Solderability (test of wettability of the pins)	(245 ±5) °C, (3 ±0.3) s, wetting of soldering area ≥95% (based on IEC 60068-2-58, solder bath method)
Resistance to soldering heat	To JEDEC J-STD 020D (Tc: +245 °C on pin)
Operating temperature	-40 °C ... +150 °C (component)
Storage conditions (packaged)	-25 °C ... +40 °C, ≤ 75% RH

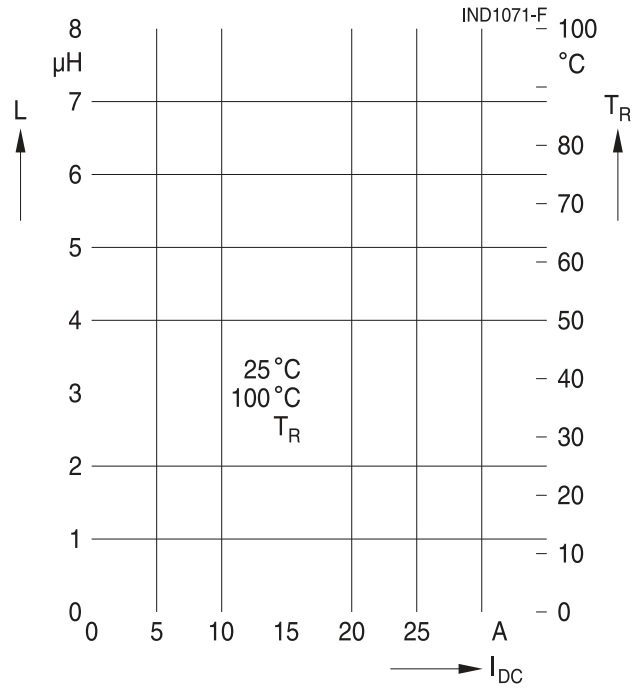
Characteristics and ordering codes

L_R	$I_{sat, 25°C}$	$I_{sat, 100°C}$	R_{DC} (max)	R_{DC} (typ)	Height h (nom.)	Approx. weight	Ordering code
μH	A	A	mΩ	mΩ	mm	g	
1.0	50.0	45.0	0.65	0.55	9.8	15.7	B82559A2102A020
1.5	50.0	43.0	0.90	0.80	10.7	17.6	B82559A3152A020
2.2	43.0	38.0	1.20	1.00	12.1	19.8	B82559A4222A020
3.3	34.0	29.0	1.50	1.30	14.1	22.5	B82559A5332A020
4.7	22.0	19.0	2.40	2.15	9.8	15.7	B82559A4472A020
6.8	19.0	16.5	2.90	2.70	9.8	16.3	B82559A5682A020
10.0	18.3	16.0	3.90	3.70	10.7	18.1	B82559A7103A020
15.0	15.3	13.5	4.95	4.65	12.1	19.7	B82559A9153A020
20.0	14.3	12.0	6.40	5.70	14.1	22.5	B82559A0203A020
29.0	11.0	9.5	7.10	6.65	14.1	23.9	B82559A0293A020
35.0	9.3	7.5	7.10	6.65	14.1	23.9	B82559A0353A020

B82559A5332A020



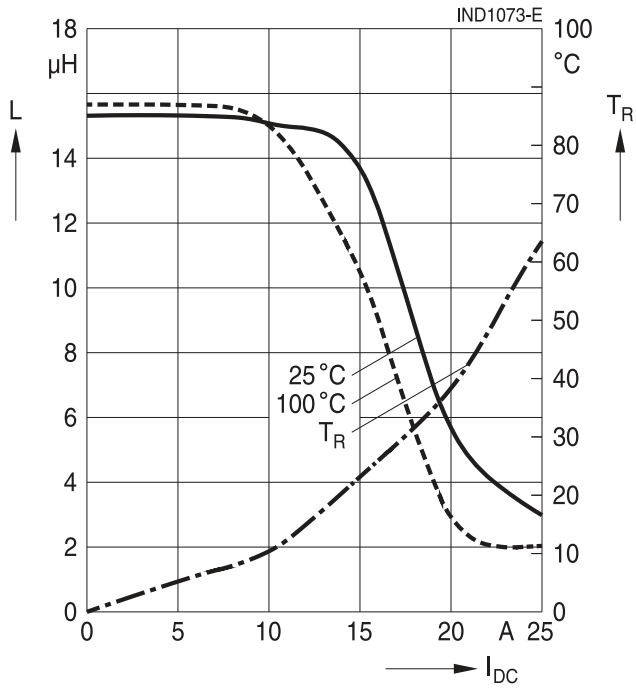
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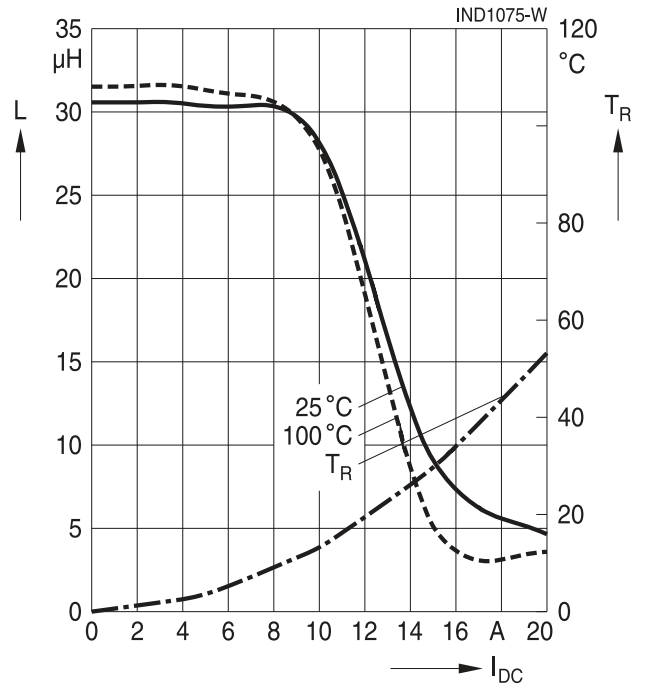
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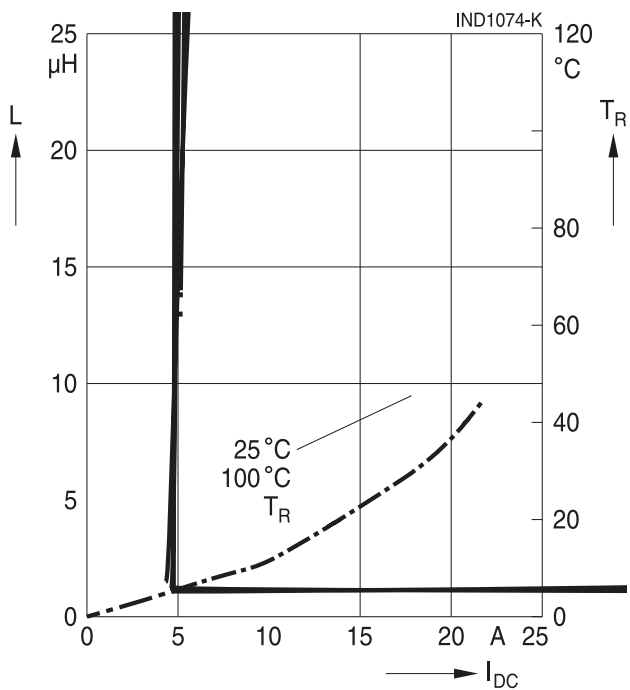
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B82559A0293A020



B82559A0203A020



B82559A0353A020

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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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.
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4. In order to satisfy certain technical requirements, **some of the products described in this publication may contain substances subject to restrictions in certain jurisdictions (e.g. because they are classed as hazardous)**. Useful information on this will be found in our Material Data Sheets on the Internet (www.epcos.com/material). Should you have any more detailed questions, please contact our sales offices.
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6. Unless otherwise agreed in individual contracts, **all orders are subject to the current version of the “General Terms of Delivery for Products and Services in the Electrical Industry” published by the German Electrical and Electronics Industry Association (ZVEI)**.

Important notes

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The IATF certifications confirm our compliance with requirements regarding the quality management system in the automotive industry. Referring to customer requirements and customer specific requirements (“CSR”) TDK always has and will continue to have the policy of respecting individual agreements. Even if IATF 16949 may appear to support the acceptance of unilateral requirements, we hereby like to emphasize that **only requirements mutually agreed upon can and will be implemented in our Quality Management System.** For clarification purposes we like to point out that obligations from IATF 16949 shall only become legally binding if individually agreed upon.
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