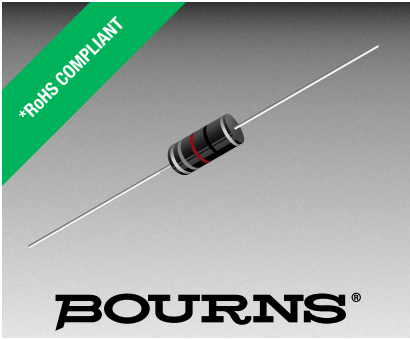




THE DATASHEET OF
9230-94-TR-RC





Features

- Formerly J.W. Miller® model
- High Q value
- Inductance range: 0.1 μ H to 1000 μ H
- RoHS compliant*

Applications

- Filters
- Output chokes

9230 Series – Molded Axial Inductor

Electrical Specifications

Bourns Part No.	Inductance		Q Min.	Test Frequency (MHz)	SRF (MHz) Min.	DCR (Ω) Max.	Idc (mA)	Core Material
	(μ H)	ToI. (%)						
9230-94-RC	0.10	± 10	40	25	690	0.07	1100	Phenolic
9230-96-RC	0.12	± 10	40	25	650	0.08	1100	Phenolic
9230-00-RC	0.15	± 10	38	25	600	0.10	1100	Phenolic
9230-02-RC	0.18	± 10	35	25	550	0.12	1010	Phenolic
9230-04-RC	0.22	± 10	33	25	510	0.14	935	Phenolic
9230-06-RC	0.27	± 10	33	25	430	0.16	875	Phenolic
9230-08-RC	0.33	± 10	30	25	410	0.20	780	Phenolic
9230-10-RC	0.39	± 10	30	25	380	0.30	640	Phenolic
9230-12-RC	0.47	± 10	30	25	340	0.35	590	Phenolic
9230-14-RC	0.56	± 10	30	25	300	0.50	495	Phenolic
9230-16-RC	0.68	± 10	28	25	275	0.60	450	Phenolic
9230-18-RC	0.82	± 10	28	25	250	0.85	380	Phenolic
9230-20-RC	1.0	± 10	25	25	230	1.00	350	Phenolic
9230-22-RC	1.2	± 10	25	7.9	150	0.18	825	Ferrite
9230-24-RC	1.5	± 10	28	7.9	140	0.22	745	Ferrite
9230-26-RC	1.8	± 10	30	7.9	125	0.30	640	Ferrite
9230-28-RC	2.2	± 10	30	7.9	115	0.40	550	Ferrite
9230-30-RC	2.7	± 10	37	7.9	100	0.50	495	Ferrite
9230-32-RC	3.3	± 10	45	7.9	90	0.85	380	Ferrite
9230-34-RC	3.9	± 10	45	7.9	82	1.0	350	Ferrite
9230-36-RC	4.7	± 10	45	7.9	75	1.2	320	Ferrite
9230-38-RC	5.6	± 10	50	7.9	68	1.8	260	Ferrite
9230-40-RC	6.8	± 10	50	7.9	60	2.0	245	Ferrite
9230-42-RC	8.2	± 10	55	7.9	55	2.7	210	Ferrite
9230-44-RC	10	± 10	55	7.9	50	3.7	180	Ferrite
9230-46-RC	12	± 10	45	2.5	40	2.7	210	Ferrite
9230-48-RC	15	± 10	45	2.5	35	2.8	205	Ferrite
9230-50-RC	18	± 10	50	2.5	32	3.1	195	Ferrite
9230-52-RC	22	± 10	50	2.5	25	3.3	190	Ferrite
9230-54-RC	27	± 10	50	2.5	22	3.5	185	Ferrite
9230-56-RC	33	± 10	45	2.5	24	3.4	187	Ferrite
9230-58-RC	39	± 10	45	2.5	22	3.6	180	Ferrite
9230-60-RC	47	± 10	45	2.5	20	4.5	165	Ferrite
9230-62-RC	56	± 10	45	2.5	18	5.7	145	Ferrite
9230-64-RC	68	± 10	50	2.5	15	6.7	135	Ferrite
9230-66-RC	82	± 10	50	2.5	14	7.3	130	Ferrite
9230-68-RC	100	± 10	50	2.5	13	8.0	125	Ferrite
9230-70-RC	120	± 10	30	0.79	12	13	97	Ferrite
9230-72-RC	150	± 10	30	0.79	11	15	85	Ferrite
9230-74-RC	180	± 10	30	0.79	10	17	79	Ferrite
9230-76-RC	220	± 10	30	0.79	9	21	73	Ferrite
9230-78-RC	270	± 10	30	0.79	8	25	65	Ferrite
9230-80-RC	330	± 10	30	0.79	7	28	62	Ferrite
9230-82-RC	390	± 10	30	0.79	6.5	35	55	Ferrite
9230-84-RC	470	± 10	30	0.79	6	42	50	Ferrite
9230-86-RC	560	± 10	30	0.79	5	46	48	Ferrite
9230-88-RC	680	± 10	30	0.79	4.2	60	42	Ferrite
9230-90-RC	820	± 10	30	0.79	3.8	65	40	Ferrite
9230-92-RC	1000	± 10	30	0.79	3.4	72	38	Ferrite

Additional Information

Click these links for more information:



General Specifications

Temperature Rise 35 °C at I_{dc}
 Operating Temperature
 Ferrite -55 °C to +125 °C
 Phenolic -55 °C to +105 °C
 Storage Temperature
 Ferrite -55 °C to +125 °C
 Phenolic -55 °C to +105 °C
 Dielectric Strength 1000 Vrms

Materials

Core Phenolic or Ferrite
 Wire Enameled copper
 Terminal Coating Sn
 Packaging
 Standard 1000 pcs. per bag
 Optional 5000 pcs. per 14-inch reel

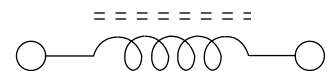
How to Order

9230 - 02 - - - RC

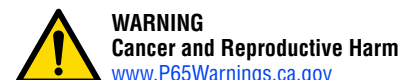
Model _____
 Value Code _____
 Two-digit code from table
 (Example: -02 = 0.18 μ H)
 Packaging Code _____
 Blank = 1000 pcs./bag
 TR = 5000 pcs./14-inch reel
 Compliance Code _____
 RC = RoHS compliant*

Examples:
 • 9230-00-RC = 0.15 μ H packaged
 1000 pcs./bag.
 • 9230-16-TR-RC = 0.68 μ H packaged
 5000 pcs./14-inch reel.

Electrical Schematic



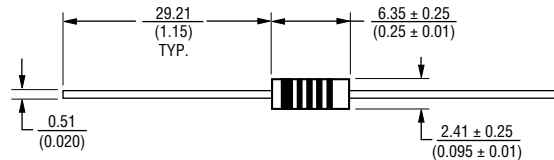
*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
 Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.



9230 Series – Molded Axial Inductor

BOURNS®

Product Dimensions



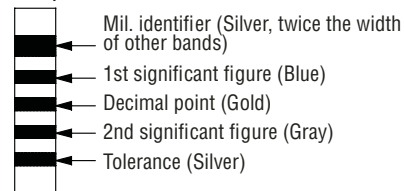
DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

NOTE: The wire diameter used on these products is from 0.025 to 0.21 mm. Due to the inductor wire termination being made on the connection pin, careful handling during assembly is required to ensure that the lead is not subjected to any stress close to the termination point. If bending/shaping of the pin is required, maintain stability and avoid excessive or abrupt forces to keep the parts centered and the leads secure on both sides. The bend radius should be located several millimeters away from the wire termination point to ensure that it is not stressed, with possible stretching or snapping occurring.

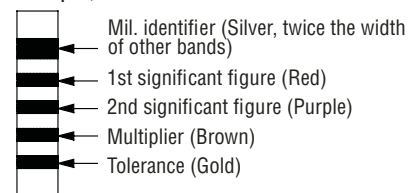
Typical Part Marking - MIL-STD Color Code

Color	1st & 2nd Significant Figure or Decimal Point	Multiplier	Tolerance
Black	0	1	
Brown	1	10	
Red	2	100	
Orange	3	1000	
Yellow	4		
Green	5		
Blue	6		
Violet	7		
Gray	8		
White	9		
Silver			± 10 %
Gold	Decimal Point		± 5 %

Example for L value less than 10 μH
6.8 μH , ±10 %



Example for L value 10 μH and higher
270 μH , ±5 %



BOURNS®

Americas: Tel: +1 951-781-5500 • Email: americus@bourns.com

Mexico: Tel: +52-614-478-0400 • Email: mexicus@bourns.com

Asia: Tel: +886-2-2562-4117 • Email: asiacus@bourns.com

EMEA: Tel: +36 88 885 877 • Email: eurocus@bourns.com

www.bourns.com

REV. 03/25

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

This legal disclaimer applies to purchasers and users of Bourns® products manufactured by or on behalf of Bourns, Inc. and its affiliates (collectively, "Bourns").

Unless otherwise expressly indicated in writing, Bourns® products and data sheets relating thereto are subject to change without notice. Users should check for and obtain the latest relevant information and verify that such information is current and complete before placing orders for Bourns® products.

The characteristics and parameters of a Bourns® product set forth in its data sheet are based on laboratory conditions, and statements regarding the suitability of products for certain types of applications are based on Bourns' knowledge of typical requirements in generic applications. The characteristics and parameters of a Bourns® product in a user application may vary from the data sheet characteristics and parameters due to (i) the combination of the Bourns® product with other components in the user's application, or (ii) the environment of the user application itself. The characteristics and parameters of a Bourns® product also can and do vary in different applications and actual performance may vary over time. Users should always verify the actual performance of the Bourns® product in their specific devices and applications, and make their own independent judgments regarding the amount of additional test margin to design into their device or application to compensate for differences between laboratory and real world conditions.

Unless Bourns has explicitly designated an individual Bourns® product as meeting the requirements of a particular industry standard (e.g., IATF 16949) or a particular qualification (e.g., UL listed or recognized), Bourns is not responsible for any failure of an individual Bourns® product to meet the requirements of such industry standard or particular qualification. Users of Bourns® products are responsible for ensuring compliance with safety-related requirements and standards applicable to their devices or applications.

Bourns® products are not recommended, authorized or intended for use in nuclear, lifesaving, life-critical or life-sustaining applications, nor in any other applications where failure or malfunction may result in personal injury, death, or severe property or environmental damage. Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any Bourns® products in such unauthorized applications might not be safe and thus is at the user's sole risk. Life-critical applications include devices identified by the U.S. Food and Drug Administration as Class III devices and generally equivalent classifications outside of the United States.

Bourns expressly identifies those Bourns® standard products that are suitable for use in automotive applications on such products' data sheets in the section entitled "Applications." Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any other Bourns® standard products in an automotive application might not be safe and thus is not recommended, authorized or intended and is at the user's sole risk. If Bourns expressly identifies a sub-category of automotive application in the data sheet for its standard products (such as infotainment or lighting), such identification means that Bourns has reviewed its standard product and has determined that if such Bourns® standard product is considered for potential use in automotive applications, it should only be used in such sub-category of automotive applications. Any reference to Bourns® standard product in the data sheet as compliant with the AEC-Q standard or "automotive grade" does not by itself mean that Bourns has approved such product for use in an automotive application.

Bourns® standard products are not tested to comply with United States Federal Aviation Administration standards generally or any other generally equivalent governmental organization standard applicable to products designed or manufactured for use in aircraft or space applications. Bourns expressly identifies Bourns® standard products that are suitable for use in aircraft or space applications on such products' data sheets in the section entitled "Applications." Unless expressly and specifically approved in writing by two authorized Bourns representatives on a case-by-case basis, use of any other Bourns® standard product in an aircraft or space application might not be safe and thus is not recommended, authorized or intended and is at the user's sole risk.

The use and level of testing applicable to Bourns® custom products shall be negotiated on a case-by-case basis by Bourns and the user for which such Bourns® custom products are specially designed. Absent a written agreement between Bourns and the user regarding the use and level of such testing, the above provisions applicable to Bourns® standard products shall also apply to such Bourns® custom products.

Users shall not sell, transfer, export or re-export any Bourns® products or technology for use in activities which involve the design, development, production, use or stockpiling of nuclear, chemical or biological weapons or missiles, nor shall they use Bourns® products or technology in any facility which engages in activities relating to such devices. The foregoing restrictions apply to all uses and applications that violate national or international prohibitions, including embargos or international regulations. Further, Bourns® products and Bourns technology and technical data may not under any circumstance be exported or re-exported to countries subject to international sanctions or embargoes. Bourns® products may not, without prior authorization from Bourns and/or the U.S. Government, be resold, transferred, or re-exported to any party not eligible to receive U.S. commodities, software, and technical data.

To the maximum extent permitted by applicable law, Bourns disclaims (i) any and all liability for special, punitive, consequential, incidental or indirect damages or lost revenues or lost profits, and (ii) any and all implied warranties, including implied warranties of fitness for particular purpose, non-infringement and merchantability.

For your convenience, copies of this Legal Disclaimer Notice with German, Spanish, Japanese, Traditional Chinese and Simplified Chinese bilingual versions are available at:

Web Page: <http://www.bourns.com/legal/disclaimers-terms-and-policies>

PDF: <http://www.bourns.com/docs/Legal/disclaimer.pdf>

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View 9230-94-TR-RC on WIN SOURCE](#)

 [Bourns Inc. Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management