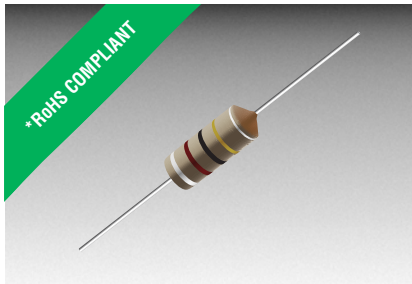




**THE DATASHEET OF
8250-104K-RC**





BOURNS®

Features

- Formerly J. W. Miller® model
- Current rating up to 3 A
- Inductance range: 0.1 μH to 100,000 μH
- Shielded
- RoHS compliant*

Applications

- Signal processing
- Telecommunications
- Dense board designs

8250 Series - Shielded RF Choke

Electrical Specifications (@ 25 °C)

Part Number	Inductance (μH) $\pm 10\%$	Q Min.	Test Freq. (MHz)	SRF (MHz) Min.	DCR (Ω) max.	Idc (mA)	Isat (mA)
8250-R10K-RC	0.10	50	25	400	0.026	3000	3000
8250-R12K-RC	0.12	50	25	400	0.029	2860	2860
8250-R15K-RC	0.15	50	25	400	0.034	2600	2600
8250-R18K-RC	0.18	50	25	400	0.044	2300	2300
8250-R22K-RC	0.22	50	25	400	0.056	2050	2050
8250-R27K-RC	0.27	50	25	400	0.090	1625	1625
8250-R33K-RC	0.33	47	25	325	0.122	1400	1400
8250-R39K-RC	0.39	47	25	390	0.161	1220	1220
8250-R47K-RC	0.47	47	25	264	0.218	1060	1060
8250-R56K-RC	0.56	45	25	249	0.290	900	900
8250-R68K-RC	0.68	43	25	221	0.382	790	790
8250-R82K-RC	0.82	41	25	200	0.450	725	725
8250-1R0K-RC	1.0	42	25	156	0.054	2080	2080
8250-1R2K-RC	1.2	43	7.9	144	0.070	1840	1840
8250-1R5K-RC	1.5	41	7.9	128	0.096	1560	1560
8250-1R8K-RC	1.8	42	7.9	121	0.107	1480	1480
8250-2R2K-RC	2.2	42	7.9	108	0.142	1290	1290
8250-2R7K-RC	2.7	41	7.9	96	0.284	1130	1130
8250-3R3K-RC	3.3	41	7.9	88	0.260	950	950
8250-3R9K-RC	3.9	41	7.9	84	0.354	815	815
8250-4R7K-RC	4.7	42	7.9	72	0.168	710	710
8250-5R6K-RC	5.6	42	7.9	69	0.511	680	680
8250-6R8K-RC	6.8	42	7.9	62	0.750	560	560
8250-8R2K-RC	8.2	46	7.9	58	0.828	535	535
8250-100K-RC	10	46	7.9	53	1.270	532	532
8250-120K-RC	12	50	2.5	47	1.760	368	368
8250-150K-RC	15	50	2.5	41	2.300	325	325
8250-180K-RC	18	50	2.5	43	0.677	596	235
8250-220K-RC	22	50	2.5	38	0.742	565	220
8250-270K-RC	27	50	2.5	36	0.850	526	200
8250-330K-RC	33	50	2.5	33	0.928	505	190
8250-390K-RC	39	50	2.5	29.4	1.28	429	180
8250-470K-RC	47	55	2.5	26.5	1.48	400	175
8250-560K-RC	56	55	2.5	25	1.64	380	160
8250-680K-RC	68	55	2.5	23	2.20	328	150
8250-820K-RC	82	55	2.5	14	1.96	349	140
8250-101K-RC	100	65	2.5	12	2.28	322	120
8250-121K-RC	120	65	0.79	11.2	2.45	311	95
8250-151K-RC	150	65	0.79	10.5	2.79	294	90
8250-181K-RC	180	65	0.79	10.0	3.08	277	85
8250-221K-RC	220	65	0.79	9.4	3.48	251	80
8250-271K-RC	270	65	0.79	8.0	4.55	231	70
8250-331K-RC	330	65	0.79	7.3	5.10	215	65
8250-391K-RC	390	65	0.79	6.9	5.62	205	60
8250-471K-RC	470	70	0.79	6.5	6.45	192	58
8250-561K-RC	560	70	0.79	6.0	8.00	174	55
8250-681K-RC	680	75	0.79	5.6	8.85	163	50

~ Continued on page 2 ~

General Specifications

Temperature Rise 35 °C at Idc
 Rated Current..... Inductance drop 5 %
 typical at Isat
 Operating Temperature
 -55 °C to +105 °C
 Storage Temperature
 -55 °C to +105 °C

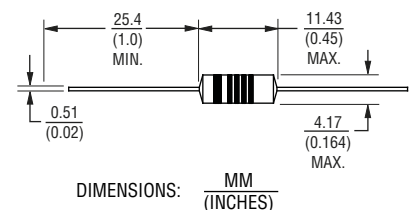
Materials

Core Material..... Ferrite
 Wire Enameled copper
 Terminal Coating..... Sn

Packaging

Standard 500 pcs. per bag
 Optional 2500 pcs. per 14-inch reel

Product Dimensions



Electrical Schematic



How To Order

8250 - 101K - _____ - RC

Model _____
 Value Code (see table) _____
 Packaging Code _____
 Blank = 500 pcs. per bag
 TR = 2500 pcs. per reel
 Compliance Code _____
 RC = RoHS Compliant

Examples:
 8250-151K-RC = 150 μH , packaged 500 pcs.
 per bag
 8250-R39K-TR-RC = 0.39 μH , packaged 2500
 pcs. per 14-inch reel



WARNING Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
 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.

8250 Series - Shielded RF Choke

BOURNS®

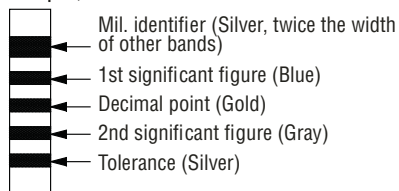
Electrical Specifications (@ 25 °C) - Continued

Part Number	Inductance (μH) ±10 %	Q Min.	Test Freq. (MHz)	SRF (MHz) Min.	DCR (Ω) max.	Idc (mA)	Isat (mA)
8250-821K-RC	820	70	0.79	4.8	10.4	151	45
8250-102K-RC	1000	65	0.79	4.5	12.1	139	40
8250-122K-RC	1200	70	0.25	2.6	15.1	125	35
8250-152K-RC	1500	70	0.25	2.5	16.8	119	33
8250-182K-RC	1800	70	0.25	2.3	19.1	111	30
8250-222K-RC	2200	70	0.25	2.2	22.0	103	27
8250-272K-RC	2700	70	0.25	2.1	25.1	97	25
8250-332K-RC	3300	70	0.25	2	33.3	85	22
8250-392K-RC	3900	70	0.25	1.8	36.8	80	20
8250-472K-RC	4700	70	0.25	1.7	51.2	68	19
8250-562K-RC	5600	70	0.25	1.6	54.6	66	17
8250-682K-RC	6800	70	0.25	1.5	62	62	16
8250-822K-RC	8200	70	0.25	1.4	86.6	52	15
8250-103K-RC	10,000	70	0.25	1.3	93.1	50	14
8250-123K-RC	12,000	50	0.079	0.88	84	53	13
8250-153K-RC	15,000	50	0.079	0.78	97	49	12
8250-183K-RC	18,000	50	0.079	0.72	104	48	10
8250-223K-RC	22,000	50	0.079	0.57	145	40	9
8250-273K-RC	27,000	50	0.079	0.46	195	34	8
8250-333K-RC	33,000	50	0.079	0.42	222	32	7.5
8250-393K-RC	39,000	50	0.079	0.42	242	31	6
8250-473K-RC	47,000	50	0.079	0.37	317	27	5.5
8250-563K-RC	56,000	50	0.079	0.36	362	25	5
8250-683K-RC	68,000	50	0.079	0.35	410	24	4
8250-823K-RC	82,000	50	0.079	0.34	440	23	3.5
8250-104K-RC	100,000	50	0.079	0.32	484	22	3

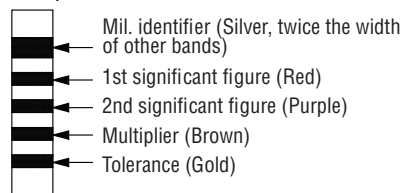
Typical Part Marking - MIL-STD Color Code

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 %



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., ISO/TS 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 8250-104K-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