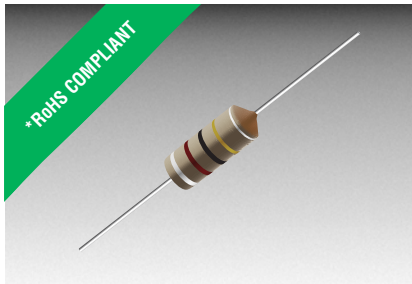




**THE DATASHEET OF**  
**8250-393K-RC**





**BOURNS®**

## Features

- Formerly J. W. Miller® model
- Current rating up to 3 A
- Inductance range: 0.1  $\mu\text{H}$  to 100,000  $\mu\text{H}$
- Shielded
- RoHS compliant\*

## Applications

- Signal processing
- Telecommunications
- Dense board designs

# 8250 Series - Shielded RF Choke

### Electrical Specifications (@ 25 °C)

Part Number	Inductance ( $\mu\text{H}$ ) $\pm 10\%$	Q Min.	Test Freq. (MHz)	SRF (MHz) Min.	DCR ( $\Omega$ ) 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

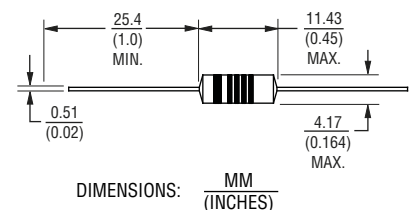
### Materials

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  $\mu\text{H}$ , packaged 500 pcs.  
 per bag  
 8250-R39K-TR-RC = 0.39  $\mu\text{H}$ , packaged 2500  
 pcs. per 14-inch reel



**WARNING Cancer and Reproductive Harm**  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.  
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# 8250 Series - Shielded RF Choke

**BOURNS®**

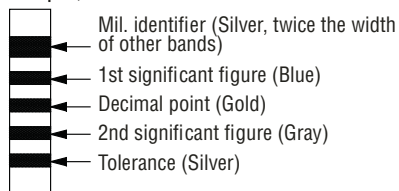
## Electrical Specifications (@ 25 °C) - Continued

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

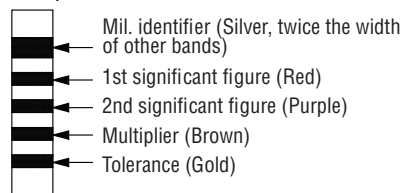
## Typical Part Marking - MIL-STD Color Code

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 %



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