

**BOURNS®**

## Features

- Formerly J. W. Miller® model
- Current rating up to 3.3 A
- Inductance range: 1.0  $\mu$ H to 1,000  $\mu$ H
- RoHS compliant\*

## Applications

- DC/DC converters
- Power supplies
- General use

# 5300 Series Conformal Coated RF Choke

### Electrical Specifications (@ 25 °C)

Bourns Part No.	Inductance		Test Frequency	SRF (MHz) Min.	DCR ( $\Omega$ ) Max.	Idc (mA)	Isat (mA)
	( $\mu$ H)	Tol. (%)					
5300-01-RC	1.0	$\pm 10$	7.96 MHz	190	0.018	3300	3000
5300-02-RC	1.2	$\pm 10$	7.96 MHz	170	0.019	3200	2700
5300-03-RC	1.5	$\pm 10$	7.96 MHz	160	0.020	3100	2500
5300-04-RC	1.8	$\pm 10$	7.96 MHz	150	0.023	2900	2100
5300-05-RC	2.2	$\pm 10$	7.96 MHz	130	0.031	2600	2000
5300-06-RC	2.7	$\pm 10$	7.96 MHz	120	0.033	2500	1900
5300-07-RC	3.3	$\pm 10$	7.96 MHz	110	0.054	1900	1700
5300-08-RC	3.9	$\pm 10$	7.96 MHz	100	0.060	1800	1500
5300-09-RC	4.7	$\pm 10$	7.96 MHz	86	0.068	1700	1400
5300-10-RC	5.6	$\pm 10$	7.96 MHz	64	0.074	1600	1300
5300-11-RC	6.8	$\pm 10$	7.96 MHz	44	0.080	1600	1200
5300-12-RC	8.2	$\pm 10$	7.96 MHz	32	0.087	1500	1100
5300-13-RC	10	$\pm 10$	1 KHz	25	0.095	1500	970
5300-14-RC	12	$\pm 10$	1 KHz	17	0.11	1400	880
5300-15-RC	15	$\pm 10$	1 KHz	13	0.15	1200	790
5300-16-RC	18	$\pm 10$	1 KHz	10	0.16	1100	710
5300-17-RC	22	$\pm 10$	1 KHz	8.4	0.19	1000	640
5300-18-RC	27	$\pm 10$	1 KHz	8.0	0.22	950	580
5300-19-RC	33	$\pm 10$	1 KHz	7.6	0.24	910	530
5300-20-RC	39	$\pm 10$	1 KHz	7.1	0.26	880	480
5300-21-RC	47	$\pm 10$	1 KHz	6.0	0.35	760	430
5300-22-RC	56	$\pm 10$	1 KHz	5.8	0.47	650	400
5300-23-RC	68	$\pm 10$	1 KHz	4.3	0.53	610	370
5300-24-RC	82	$\pm 10$	1 KHz	4.1	0.60	580	330
5300-25-RC	100	$\pm 10$	1 KHz	3.9	0.67	550	300
5300-26-RC	120	$\pm 10$	1 KHz	3.6	0.90	470	270
5300-27-RC	150	$\pm 10$	1 KHz	3.2	1.2	410	250
5300-28-RC	180	$\pm 10$	1 KHz	2.8	1.4	380	220
5300-29-RC	220	$\pm 10$	1 KHz	2.3	1.9	320	200
5300-30-RC	270	$\pm 10$	1 KHz	2.1	2.1	310	180
5300-31-RC	330	$\pm 10$	1 KHz	1.9	2.4	290	170
5300-32-RC	390	$\pm 10$	1 KHz	1.7	3.0	260	150
5300-33-RC	470	$\pm 10$	1 KHz	1.4	3.4	240	140
5300-34-RC	560	$\pm 10$	1 KHz	1.3	4.7	210	130
5300-35-RC	680	$\pm 10$	1 KHz	1.2	6.4	180	110
5300-36-RC	820	$\pm 10$	1 KHz	1.1	7.1	170	100
5300-37-RC	1000	$\pm 10$	1 KHz	1.0	7.9	160	95
5300-38-RC	1200	$\pm 10$	1 KHz	0.94	9.0	150	87
5300-39-RC	1500	$\pm 10$	1 KHz	0.76	12	130	78
5300-40-RC	1800	$\pm 10$	1 KHz	0.72	14	120	71
5300-41-RC	2200	$\pm 10$	1 KHz	0.64	19	100	64
5300-42-RC	2700	$\pm 10$	1 KHz	0.56	25	90	58
5300-43-RC	3300	$\pm 10$	1 KHz	0.53	29	83	52
5300-44-RC	3900	$\pm 10$	1 KHz	0.48	34	77	48
5300-45-RC	4700	$\pm 10$	1 KHz	0.45	37	74	44
5300-46-RC	5600	$\pm 10$	1 KHz	0.40	50	63	40
5300-47-RC	6800	$\pm 10$	1 KHz	0.36	58	59	36
5300-48-RC	8200	$\pm 10$	1 KHz	0.29	68	54	33
5300-49-RC	10,000	$\pm 10$	1 KHz	0.27	75	52	30

### 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  
 Dielectric Strength ..... 500 Vrms

### Materials

Core ..... Ferrite  
 Wire ..... Enameled copper  
 Terminal Coating ..... Sn  
 Coating ..... Epoxy resin  
 Packaging  
 Standard ..... 500 pcs. per bag  
 Optional ..... 3000 pcs. per 14-inch reel

### How to Order

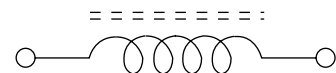
**5300 - 02 - - - RC**

Model \_\_\_\_\_  
 Value Code \_\_\_\_\_  
 (See table)  
 Packaging Code \_\_\_\_\_  
 Blank = 500 pcs./bag  
 TR = 3000 pcs./14-inch reel  
 Compliance Code \_\_\_\_\_  
 RC = RoHS compliant\*

#### Examples:

- 5300-02-RC = 1.2 mH packaged 500 pcs./bag.
- 5300-16-TR-RC = 18 mH packaged 3000 pcs./14-inch reel.

### Electrical Schematic

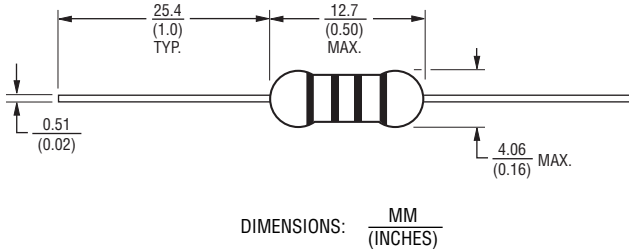


\*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

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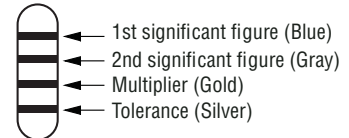
## Product Dimensions



## Typical Part Marking - EIA Color Code

Color	1st & 2nd Significant Figure	Multiplier	Tolerance
Silver		0.01	±10 %
Gold		0.1	±5 %
Black	0	1	
Brown	1	10	
Red	2	100	
Orange	3	1000	
Yellow	4		
Green	5		
Blue	6		
Violet	7		
Gray	8		
White	9		

Example for 6.8  $\mu\text{H}$ , ±10 %



Example for 270  $\mu\text{H}$ , ±10 %

