



BOURNS®

Features

- Formerly J. W. Miller® model
- Current rating up to 3.3 A
- Inductance range: 1.0 μ H to 1,000 μ 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 (Ω) Max. | Idc (mA) | Isat (mA) |
|-----------------|------------|----------|----------------|----------------|-----------------------|----------|-----------|
| | (μ H) | Tol. (%) | | | | | |
| 5300-01-RC | 1.0 | ± 10 | 7.96 MHz | 190 | 0.018 | 3300 | 3000 |
| 5300-02-RC | 1.2 | ± 10 | 7.96 MHz | 170 | 0.019 | 3200 | 2700 |
| 5300-03-RC | 1.5 | ± 10 | 7.96 MHz | 160 | 0.020 | 3100 | 2500 |
| 5300-04-RC | 1.8 | ± 10 | 7.96 MHz | 150 | 0.023 | 2900 | 2100 |
| 5300-05-RC | 2.2 | ± 10 | 7.96 MHz | 130 | 0.031 | 2600 | 2000 |
| 5300-06-RC | 2.7 | ± 10 | 7.96 MHz | 120 | 0.033 | 2500 | 1900 |
| 5300-07-RC | 3.3 | ± 10 | 7.96 MHz | 110 | 0.054 | 1900 | 1700 |
| 5300-08-RC | 3.9 | ± 10 | 7.96 MHz | 100 | 0.060 | 1800 | 1500 |
| 5300-09-RC | 4.7 | ± 10 | 7.96 MHz | 86 | 0.068 | 1700 | 1400 |
| 5300-10-RC | 5.6 | ± 10 | 7.96 MHz | 64 | 0.074 | 1600 | 1300 |
| 5300-11-RC | 6.8 | ± 10 | 7.96 MHz | 44 | 0.080 | 1600 | 1200 |
| 5300-12-RC | 8.2 | ± 10 | 7.96 MHz | 32 | 0.087 | 1500 | 1100 |
| 5300-13-RC | 10 | ± 10 | 1 KHz | 25 | 0.095 | 1500 | 970 |
| 5300-14-RC | 12 | ± 10 | 1 KHz | 17 | 0.11 | 1400 | 880 |
| 5300-15-RC | 15 | ± 10 | 1 KHz | 13 | 0.15 | 1200 | 790 |
| 5300-16-RC | 18 | ± 10 | 1 KHz | 10 | 0.16 | 1100 | 710 |
| 5300-17-RC | 22 | ± 10 | 1 KHz | 8.4 | 0.19 | 1000 | 640 |
| 5300-18-RC | 27 | ± 10 | 1 KHz | 8.0 | 0.22 | 950 | 580 |
| 5300-19-RC | 33 | ± 10 | 1 KHz | 7.6 | 0.24 | 910 | 530 |
| 5300-20-RC | 39 | ± 10 | 1 KHz | 7.1 | 0.26 | 880 | 480 |
| 5300-21-RC | 47 | ± 10 | 1 KHz | 6.0 | 0.35 | 760 | 430 |
| 5300-22-RC | 56 | ± 10 | 1 KHz | 5.8 | 0.47 | 650 | 400 |
| 5300-23-RC | 68 | ± 10 | 1 KHz | 4.3 | 0.53 | 610 | 370 |
| 5300-24-RC | 82 | ± 10 | 1 KHz | 4.1 | 0.60 | 580 | 330 |
| 5300-25-RC | 100 | ± 10 | 1 KHz | 3.9 | 0.67 | 550 | 300 |
| 5300-26-RC | 120 | ± 10 | 1 KHz | 3.6 | 0.90 | 470 | 270 |
| 5300-27-RC | 150 | ± 10 | 1 KHz | 3.2 | 1.2 | 410 | 250 |
| 5300-28-RC | 180 | ± 10 | 1 KHz | 2.8 | 1.4 | 380 | 220 |
| 5300-29-RC | 220 | ± 10 | 1 KHz | 2.3 | 1.9 | 320 | 200 |
| 5300-30-RC | 270 | ± 10 | 1 KHz | 2.1 | 2.1 | 310 | 180 |
| 5300-31-RC | 330 | ± 10 | 1 KHz | 1.9 | 2.4 | 290 | 170 |
| 5300-32-RC | 390 | ± 10 | 1 KHz | 1.7 | 3.0 | 260 | 150 |
| 5300-33-RC | 470 | ± 10 | 1 KHz | 1.4 | 3.4 | 240 | 140 |
| 5300-34-RC | 560 | ± 10 | 1 KHz | 1.3 | 4.7 | 210 | 130 |
| 5300-35-RC | 680 | ± 10 | 1 KHz | 1.2 | 6.4 | 180 | 110 |
| 5300-36-RC | 820 | ± 10 | 1 KHz | 1.1 | 7.1 | 170 | 100 |
| 5300-37-RC | 1000 | ± 10 | 1 KHz | 1.0 | 7.9 | 160 | 95 |
| 5300-38-RC | 1200 | ± 10 | 1 KHz | 0.94 | 9.0 | 150 | 87 |
| 5300-39-RC | 1500 | ± 10 | 1 KHz | 0.76 | 12 | 130 | 78 |
| 5300-40-RC | 1800 | ± 10 | 1 KHz | 0.72 | 14 | 120 | 71 |
| 5300-41-RC | 2200 | ± 10 | 1 KHz | 0.64 | 19 | 100 | 64 |
| 5300-42-RC | 2700 | ± 10 | 1 KHz | 0.56 | 25 | 90 | 58 |
| 5300-43-RC | 3300 | ± 10 | 1 KHz | 0.53 | 29 | 83 | 52 |
| 5300-44-RC | 3900 | ± 10 | 1 KHz | 0.48 | 34 | 77 | 48 |
| 5300-45-RC | 4700 | ± 10 | 1 KHz | 0.45 | 37 | 74 | 44 |
| 5300-46-RC | 5600 | ± 10 | 1 KHz | 0.40 | 50 | 63 | 40 |
| 5300-47-RC | 6800 | ± 10 | 1 KHz | 0.36 | 58 | 59 | 36 |
| 5300-48-RC | 8200 | ± 10 | 1 KHz | 0.29 | 68 | 54 | 33 |
| 5300-49-RC | 10,000 | ± 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

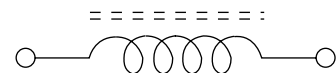
5300 - 02 - - - RC

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

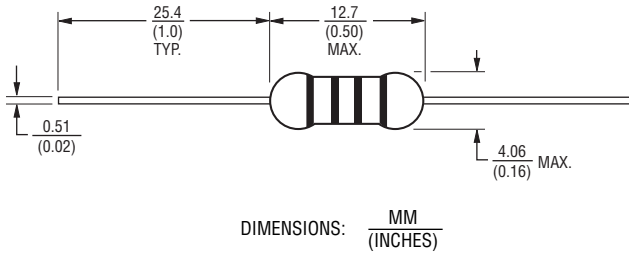


*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011. Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

5300 Series Conformal Coated RF Choke

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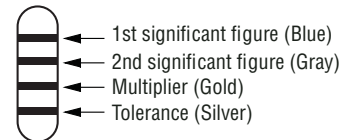
Product Dimensions



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 μH , ±10 %



Example for 270 μH , ±10 %

