



Features

- Current rating up to 1.2 A
- Dielectric strength: 500 VRMS
- RoHS compliant*

Applications

- DC/DC converters
- Power supplies
- General use

78F Series Conformal Coated RF Choke

Electrical Specifications (@ 25 °C)

| Part Number | Value (μH) | Q Min. | Test Frequency (MHz) | SRF (MHz) Min. | DCR (Ω) Max. | IDC (mA) Max. |
|-------------|------------|--------|----------------------|----------------|--------------|---------------|
| 78FR10K-RC | 0.10 ±10 % | 20 | 25 | 400 | 0.060 | 1200 |
| 78FR12K-RC | 0.12 ±10 % | 20 | 25 | 400 | 0.070 | 1200 |
| 78FR15K-RC | 0.15 ±10 % | 20 | 25 | 380 | 0.070 | 1200 |
| 78FR18K-RC | 0.18 ±10 % | 20 | 25 | 380 | 0.073 | 1150 |
| 78FR22K-RC | 0.22 ±10 % | 40 | 25 | 380 | 0.075 | 1150 |
| 78FR27K-RC | 0.27 ±10 % | 40 | 25 | 360 | 0.085 | 1110 |
| 78FR33K-RC | 0.33 ±10 % | 40 | 25 | 335 | 0.095 | 1110 |
| 78FR39K-RC | 0.39 ±10 % | 40 | 25 | 310 | 0.10 | 1000 |
| 78FR47K-RC | 0.47 ±10 % | 40 | 25 | 270 | 0.11 | 1000 |
| 78FR56K-RC | 0.56 ±10 % | 40 | 25 | 245 | 0.12 | 950 |
| 78FR68K-RC | 0.68 ±10 % | 40 | 25 | 230 | 0.13 | 900 |
| 78FR82K-RC | 0.82 ±10 % | 40 | 25 | 200 | 0.14 | 875 |
| 78F1R0K-RC | 1.0 ±10 % | 40 | 25 | 180 | 0.15 | 815 |
| 78F1R2K-RC | 1.2 ±10 % | 40 | 7.9 | 165 | 0.18 | 740 |
| 78F1R5K-RC | 1.5 ±10 % | 50 | 7.9 | 150 | 0.20 | 700 |
| 78F1R8K-RC | 1.8 ±10 % | 50 | 7.9 | 125 | 0.23 | 655 |
| 78F2R2K-RC | 2.2 ±10 % | 50 | 7.9 | 110 | 0.25 | 630 |
| 78F2R7K-RC | 2.7 ±10 % | 50 | 7.9 | 95 | 0.28 | 595 |
| 78F3R3J-RC | 3.3 ±5 % | 50 | 7.9 | 60 | 0.30 | 575 |
| 78F3R9J-RC | 3.9 ±5 % | 45 | 7.9 | 50 | 0.32 | 555 |
| 78F4R7J-RC | 4.7 ±5 % | 45 | 7.9 | 38 | 0.35 | 530 |
| 78F5R6J-RC | 5.6 ±5 % | 45 | 7.9 | 32 | 0.40 | 500 |
| 78F6R8J-RC | 6.8 ±5 % | 40 | 7.9 | 28 | 0.45 | 470 |
| 78F8R2J-RC | 8.2 ±5 % | 40 | 7.9 | 20 | 0.55 | 425 |
| 78F100J-RC | 10 ±5 % | 40 | 7.9 | 18 | 0.75 | 370 |
| 78F120J-RC | 12 ±5 % | 45 | 2.5 | 16 | 0.80 | 350 |
| 78F150J-RC | 15 ±5 % | 50 | 2.5 | 16 | 0.93 | 335 |
| 78F180J-RC | 18 ±5 % | 50 | 2.5 | 15 | 1.00 | 315 |
| 78F220J-RC | 22 ±5 % | 50 | 2.5 | 13 | 1.20 | 285 |
| 78F270J-RC | 27 ±5 % | 50 | 2.5 | 11 | 1.35 | 270 |
| 78F330J-RC | 33 ±5 % | 50 | 2.5 | 10 | 1.50 | 255 |
| 78F390J-RC | 39 ±5 % | 50 | 2.5 | 9.50 | 1.70 | 240 |
| 78F470J-RC | 47 ±5 % | 60 | 2.5 | 8.50 | 2.70 | 205 |
| 78F560J-RC | 56 ±5 % | 60 | 2.5 | 7.50 | 2.95 | 195 |
| 78F680J-RC | 68 ±5 % | 60 | 2.5 | 6.50 | 3.30 | 185 |
| 78F820J-RC | 82 ±5 % | 60 | 2.5 | 6.00 | 3.60 | 175 |
| 78F101J-RC | 100 ±5 % | 60 | 2.5 | 5.50 | 4.10 | 165 |
| 78F121J-RC | 120 ±5 % | 60 | 0.79 | 5.40 | 4.70 | 160 |
| 78F151J-RC | 150 ±5 % | 60 | 0.79 | 4.75 | 5.40 | 150 |
| 78F181J-RC | 180 ±5 % | 60 | 0.79 | 4.35 | 6.00 | 140 |
| 78F221J-RC | 220 ±5 % | 60 | 0.79 | 4.00 | 6.80 | 130 |
| 78F271J-RC | 270 ±5 % | 60 | 0.79 | 3.70 | 7.70 | 120 |
| 78F331J-RC | 330 ±5 % | 60 | 0.79 | 3.40 | 11.1 | 100 |
| 78F391J-RC | 390 ±5 % | 60 | 0.79 | 2.80 | 12.6 | 95 |
| 78F471J-RC | 470 ±5 % | 60 | 0.79 | 2.55 | 14.0 | 90 |
| 78F561J-RC | 560 ±5 % | 60 | 0.79 | 2.35 | 15.5 | 85 |
| 78F681J-RC | 680 ±5 % | 60 | 0.79 | 2.00 | 25.3 | 68 |
| 78F821J-RC | 820 ±5 % | 60 | 0.79 | 1.50 | 27.5 | 65 |
| 78F102J-RC | 1000 ±5 % | 60 | 0.79 | 1.20 | 31.4 | 60 |

General Specifications

Temperature Rise 35 °C
at rated current
 Operating Temperature Range
 -55 °C to +105 °C
 (including temperature rise)
 Storage Temperature Range
 -55 °C to +105 °C
 Moisture Sensitivity Level..... 1
 ESD Classification (HBM)..... N/A

Materials

Core Material..... Ferrite DR core
 WireEnamelled copper wire
 Terminal Cu/Sn
 Coating.....Epoxy resin
 Packaging
 Standard 5000 pcs. per bag
 Optional..... 5000 pcs. per 14-inch reel

How to Order

78F 100 J - RC

Model _____
 Value Code (see table) _____
 Tolerance Code (see table) _____
 Packaging _____
 Blank = 5,000 pcs./bag
 -TR = 5,000 pcs./14" reel
 RoHS Compliant _____

Examples:

- 78F1R0K-RC = 1.0 mH Model 78F packaged 5,000 pcs. per bag.
- 78F100J-TR-RC = 10 mH Model 78F packaged 5,000 pcs. per reel.

Electrical Schematic



Product Dimensions



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.

78F Series Conformal Coated RF Choke

BOURNS®

Packaging Specifications



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

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 , ±5 %



Example for 270 μH , ±5 %



BOURNS®

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

EMEA: Tel: +36 88 520 390 • Email: eurocus@bourns.com

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

www.bourns.com

REV. 01/18

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