

Features

- High impedance value
- Current rating up to 450 mA
- RoHS compliant*



This series is currently available but not recommended for new designs. Recommended alternatives are the Model **SRF2012A** and **SRF2012AA**.

BOURNS®

SRF2012 Series - Common Mode Chip Inductors

Electrical Specifications

| Bourns Part No. | Impedance @ 100 MHz | | Rated Voltage (DC) | Withstanding Voltage (DC) | Insulation Resistance (MΩ) | DCR Max. (Ω) | IDC Max. (mA) |
|-----------------|---------------------|---------------|--------------------|---------------------------|----------------------------|--------------|---------------|
| | (Ω) | Tolerance (%) | | | | | |
| SRF2012-300Y | 30 | ±25 | 50 | 125 | 10 | 0.20 | 450 |
| SRF2012-670Y | 67 | ±25 | 50 | 125 | 10 | 0.25 | 400 |
| SRF2012-900Y | 90 | ±25 | 50 | 125 | 10 | 0.35 | 330 |
| SRF2012-121Y | 120 | ±25 | 50 | 125 | 10 | 0.30 | 370 |
| SRF2012-161Y | 160 | ±25 | 50 | 125 | 10 | 0.40 | 300 |
| SRF2012-181Y | 180 | ±25 | 50 | 125 | 10 | 0.35 | 330 |
| SRF2012-201Y | 200 | ±25 | 50 | 125 | 10 | 0.35 | 330 |
| SRF2012-221Y | 220 | ±25 | 50 | 125 | 10 | 0.35 | 310 |
| SRF2012-261Y | 260 | ±25 | 50 | 125 | 10 | 0.40 | 300 |
| SRF2012-301Y | 300 | ±25 | 50 | 125 | 10 | 0.40 | 290 |
| SRF2012-361Y | 360 | ±25 | 50 | 125 | 10 | 0.45 | 280 |
| SRF2012-371Y | 370 | ±25 | 50 | 125 | 10 | 0.45 | 280 |
| SRF2012-501Y | 500 | ±25 | 50 | 125 | 10 | 0.55 | 170 |
| SRF2012-671Y | 670 | ±25 | 50 | 125 | 10 | 0.60 | 140 |
| SRF2012-901Y | 900 | ±25 | 50 | 125 | 10 | 0.60 | 80 |

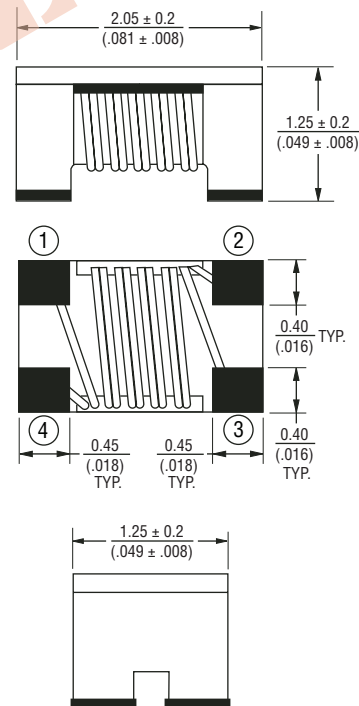
General Specifications

Reflow soldering.....230 °C; 50 sec max.
 Operating Temperature...-55 °C to +125 °C
 (Temperature rise included)
 Storage Temperature...-55 °C to +125 °C
 Resistance to Soldering Heat
260 °C, 10 sec. max.

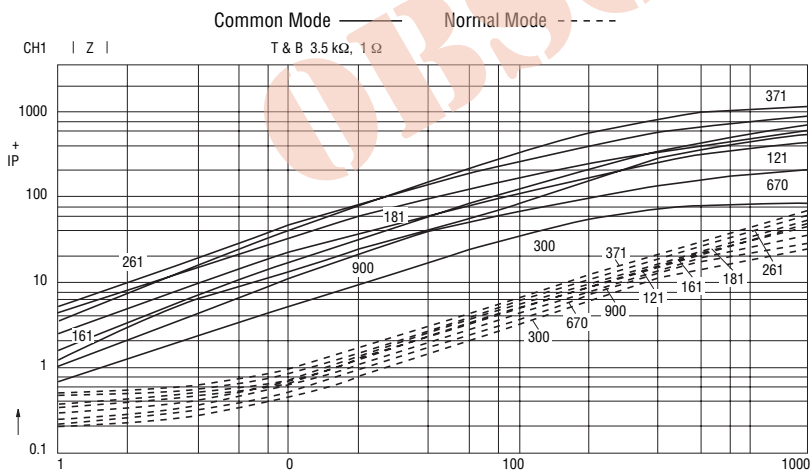
Materials

Core.....Ferrite
 Wire.....Enameled copper
 Terminal.....Ag/Ni/Sn
 Packaging.....2000 pcs. per reel

Product Dimensions

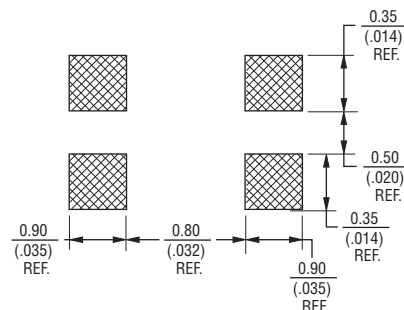


Impedance vs. Frequency



| Z (f) | Common Mode | | | | | | Normal Mode | | | | | | | |
|-------|-------------|-------|--------|--------|---------|---------|-------------|-------|-------|--------|--------|---------|---------|--------|
| | 1 MHz | 3 MHz | 10 MHz | 30 MHz | 100 MHz | 300 MHz | 1 GHz | 1 MHz | 3 MHz | 10 MHz | 30 MHz | 100 MHz | 300 MHz | 1 GHz |
| 300 | 0.64 | 1.94 | 5.99 | 14.34 | 31.33 | 53.67 | 93.89 | 0.200 | 0.240 | 0.470 | 1.180 | 3.490 | 9.850 | 34.370 |
| 670 | 1.45 | 4.42 | 13.62 | 32.45 | 70.17 | 117.65 | 201.20 | 0.250 | 0.290 | 0.550 | 1.340 | 3.830 | 10.560 | 34.260 |
| 900 | 1.04 | 3.09 | 10.14 | 28.96 | 90.46 | 254.50 | 491.35 | 0.280 | 0.330 | 0.610 | 1.520 | 4.150 | 11.260 | 38.760 |
| 121 | 2.64 | 7.96 | 23.80 | 56.67 | 126.11 | 218.67 | 417.23 | 0.330 | 0.380 | 0.670 | 1.640 | 4.710 | 13.030 | 43.460 |
| 161 | 1.79 | 5.35 | 17.50 | 49.70 | 153.36 | 327.38 | 574.77 | 0.390 | 0.440 | 0.760 | 1.850 | 5.290 | 14.560 | 53.660 |
| 171 | 3.87 | 11.68 | 35.09 | 82.74 | 180.25 | 314.98 | 587.53 | 0.400 | 0.450 | 0.750 | 1.800 | 5.050 | 13.770 | 48.810 |
| 261 | 5.33 | 15.85 | 46.54 | 109.83 | 263.01 | 479.42 | 895.05 | 0.450 | 0.500 | 0.850 | 2.040 | 5.770 | 15.820 | 62.080 |
| 371 | 4.16 | 12.42 | 40.38 | 113.88 | 369.14 | 802.72 | 1135.60 | 0.510 | 0.560 | 0.890 | 2.070 | 5.760 | 15.600 | 72.730 |

Recommended Layout



*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.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

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

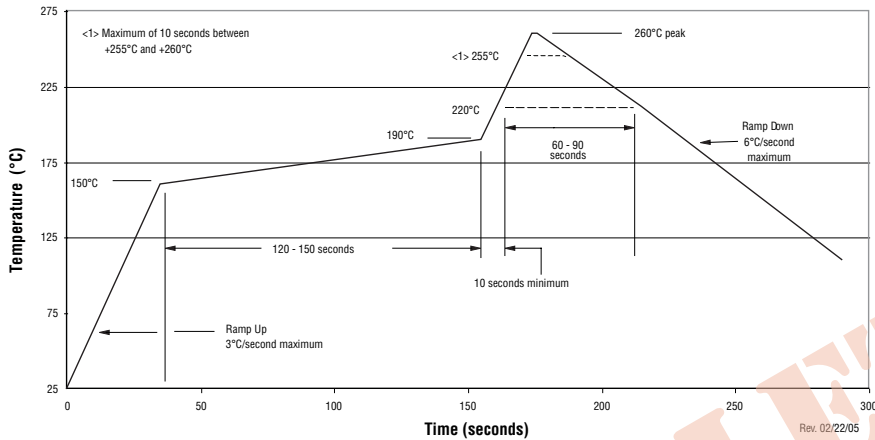
Applications

- Noise suppression
- Personal computers
- Display panels

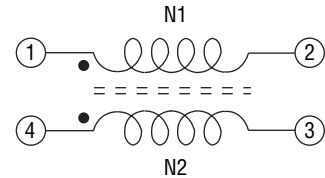
SRF2012 Series - Common Mode Chip Inductors

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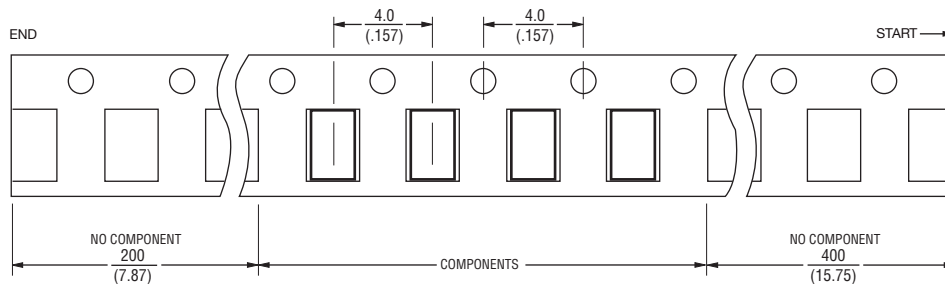
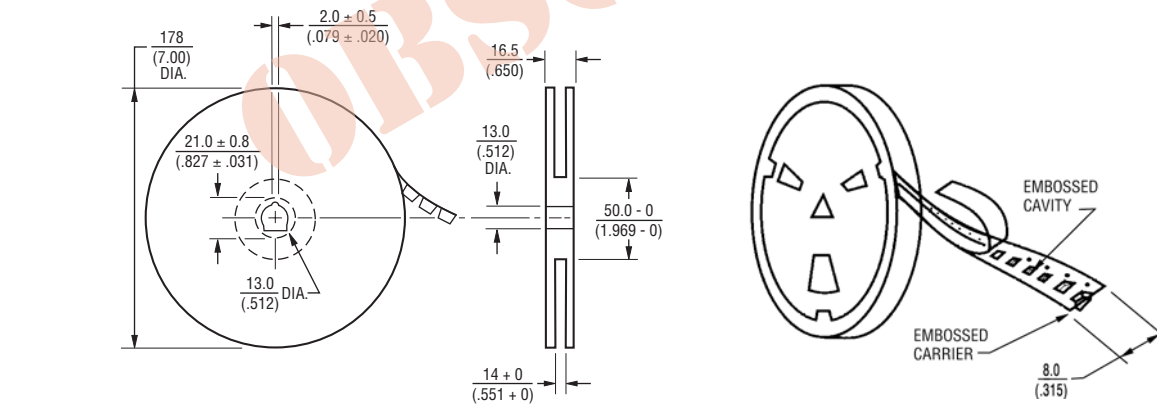
Soldering Profile



Electrical Schematic



Packaging Specifications



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

USER DIRECTION OF FEED
QTY: 2000 PCS. PER REEL

REV. 03/16

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