

Features

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

Applications

- Noise suppression
- Personal computers
- Display panels

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 |

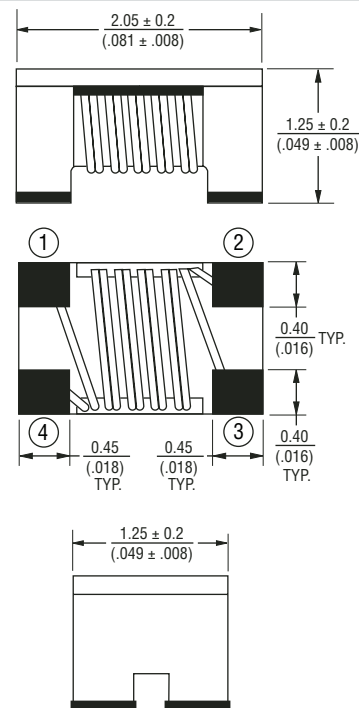
General Specifications

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.

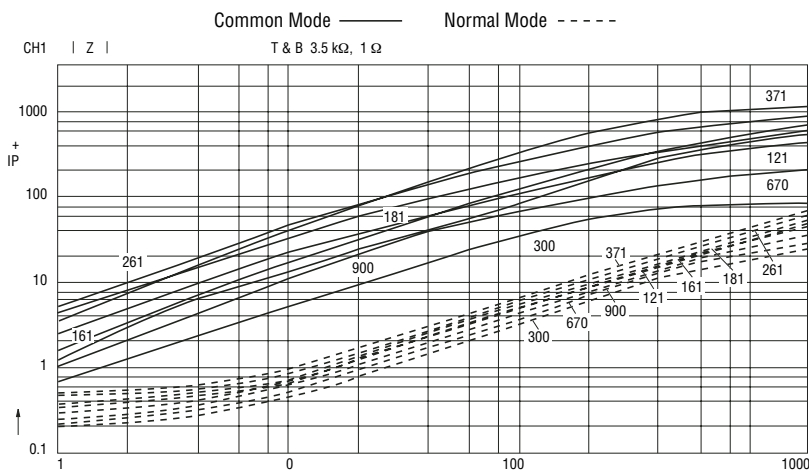
Materials

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

Product Dimensions

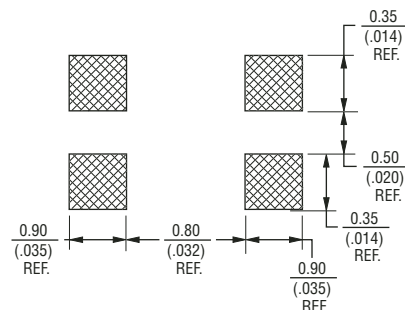


Impedance vs. Frequency



| 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



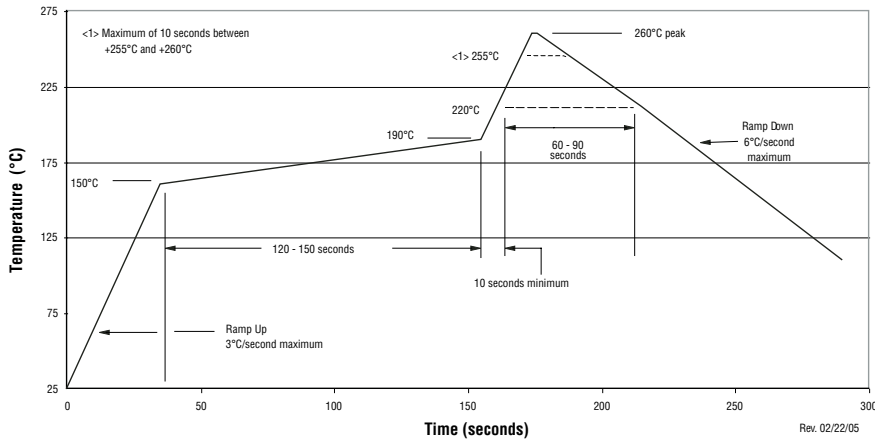
*RoHS Directive 2002/95/EC Jan 27 2003 including Annex
 Specifications are subject to change without notice.
 Customers should verify actual device performance in their specific applications.

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

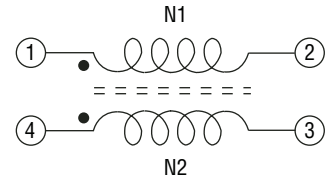
SRF2012 Series - Common Mode Chip Inductors

BOURNS®

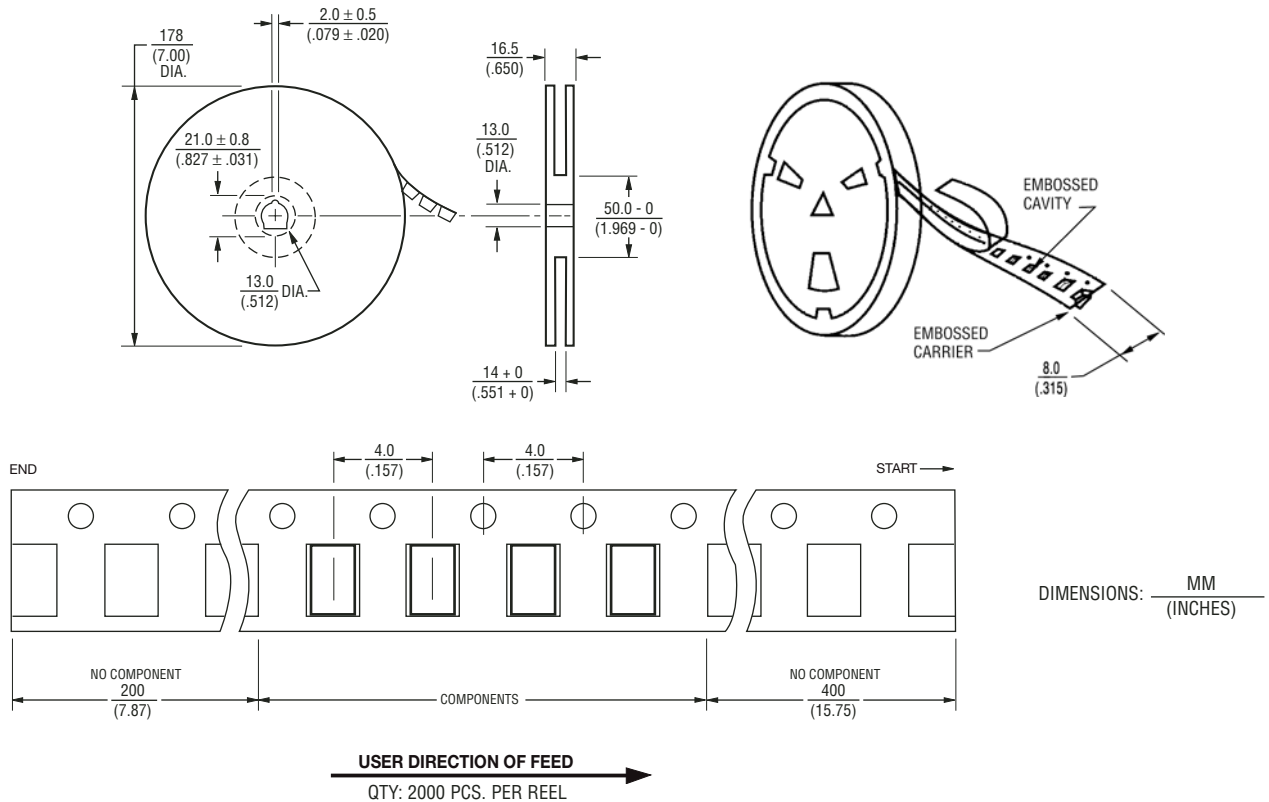
Soldering Profile



Electrical Schematic



Packaging Specifications



REV. 02/08

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