

Features

- Small size and low profile
- High impedance over high frequency range
- RoHS compliant* and halogen free**

Applications

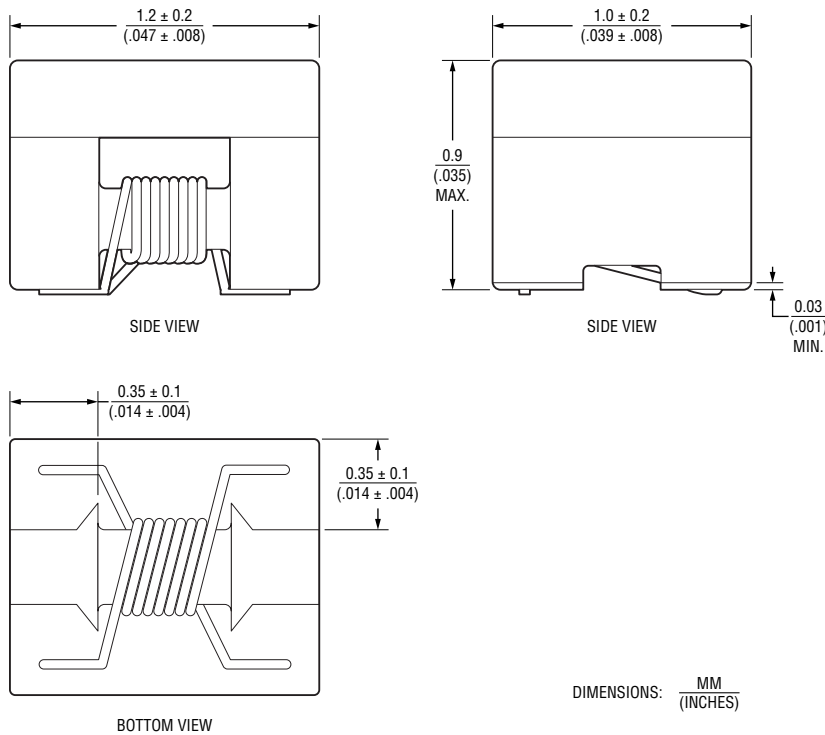
- Noise suppression in signal transmission line
- USB 3.1 Gen 1/2
- HDMI 2.0/2.1
- USB4™
- Thunderbolt™

SRF1209U4 Series – Common Mode Chip Inductor

Electrical Specifications at 25 °C

| Part Number | Common Mode Impedance (Ω) | Test Frequency (MHz) | Cut-off Frequency Typ. (GHz) | DCR Max. (Ω) | Rated Current Max. (mA) | Rated Voltage Max. (VDC) | Withstand Voltage Max. (VDC) | IR Min. (Ω) |
|----------------|---------------------------|----------------------|------------------------------|--------------|-------------------------|--------------------------|------------------------------|-------------|
| SRF1209U4-1R9Y | 1.9 ±25 % | 100 | 18 | 0.20 | 400 | 50 | 125 | 10M |
| SRF1209U4-5R3Y | 5.3 ±25 % | | | 0.30 | 300 | | | |
| SRF1209U4-300Y | 30.0 ±25 % | | | 0.20 | 400 | | | |
| SRF1209U4-900Y | 90 ±25 % | | | 0.30 | 300 | | | |

Product Dimensions

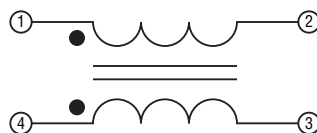


How to Order

SRF1209U4 - 1R9 Y

Model _____
 Value Code (see table) _____
 Tolerance _____
 Y = ±25 %

Electrical Schematic



Additional Information

Click these links for more information:



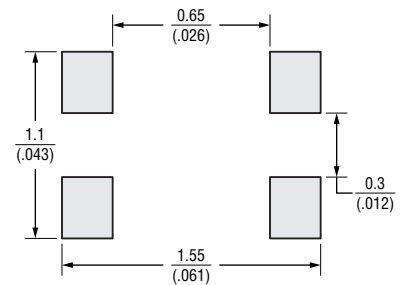
General Specifications

Operating Temperature -40 °C to +125 °C
 Storage Temperature -40 °C to +125 °C
 Temperature Rise 40 °C at rated Irms
 Moisture Sensitivity Level: 1
 ESD Classification (HBM): N/A

Materials

Core Material Ferrite
 Wire Enameled copper
 Terminal Finish Sn
 Packaging 3,000 pcs. per 7-inch reel

Recommended Layout



* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

** Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

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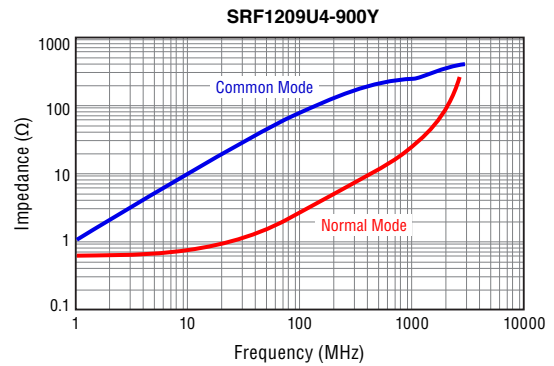
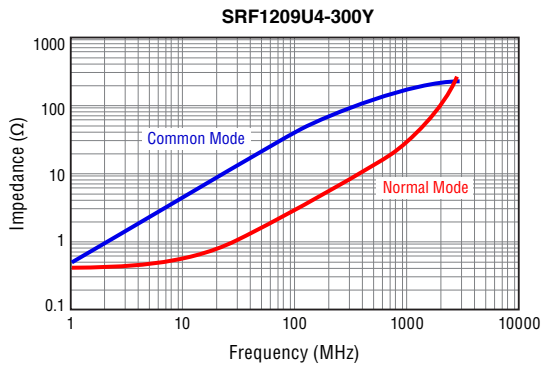
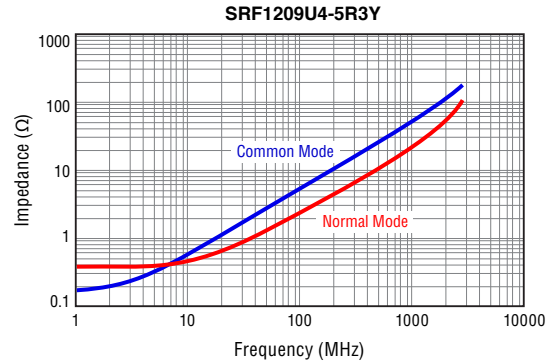
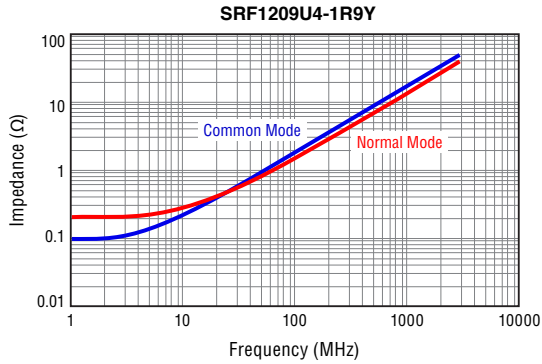


WARNING
 Cancer and Reproductive Harm
www.P65Warnings.ca.gov

SRF1209U4 Series – Common Mode Chip Inductor



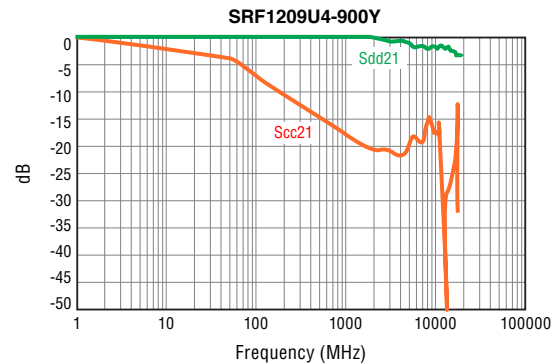
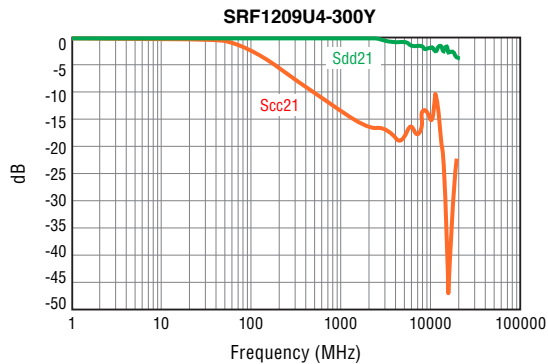
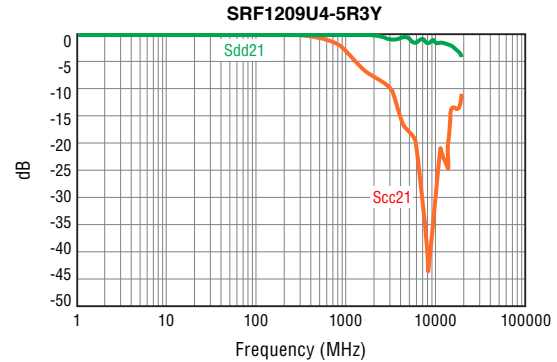
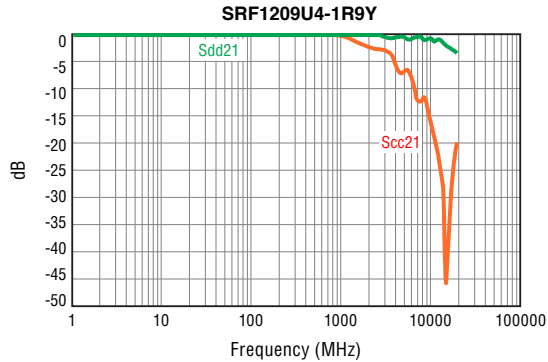
Typical Impedance vs. Frequency Curves



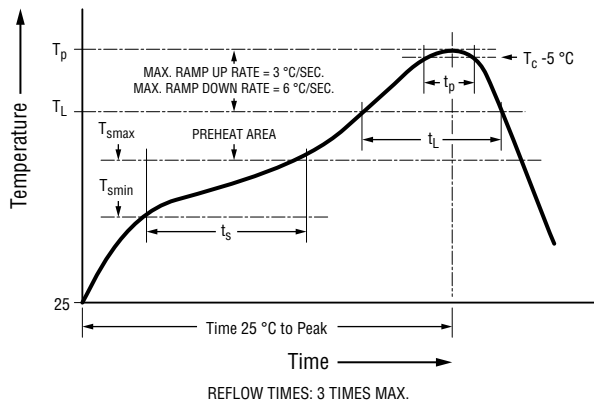
SRF1209U4 Series – Common Mode Chip Inductor



Typical Characteristics



Soldering Profile



| Profile Feature | Pb Free Assembly |
|---|------------------|
| Preheat | |
| - Temperature Min. (T_{smin}) | 150 °C |
| - Temperature Max. (T_{smax}) | 200 °C |
| - Time (t_s) from T_{smin} to T_{smax} | 60-120 seconds |
| Ramp-up Rate (T_L to T_p) | 3 °C/second max. |
| Liquidous temperature (T_L) | 217 °C |
| Time (t_L) maintained above T_L | 60-150 seconds |
| Peak package body temperature (T_p) | 260 °C |
| Time (t_p) at $T_C - 5$ °C (T_p should be equal to or less than T_C) | < 30 seconds |
| Ramp-Down Rate (T_p to T_L) | 6 °C/second max. |
| Time 25 °C to Peak Temperature | 8 minutes max. |

Specifications are subject to change without notice.

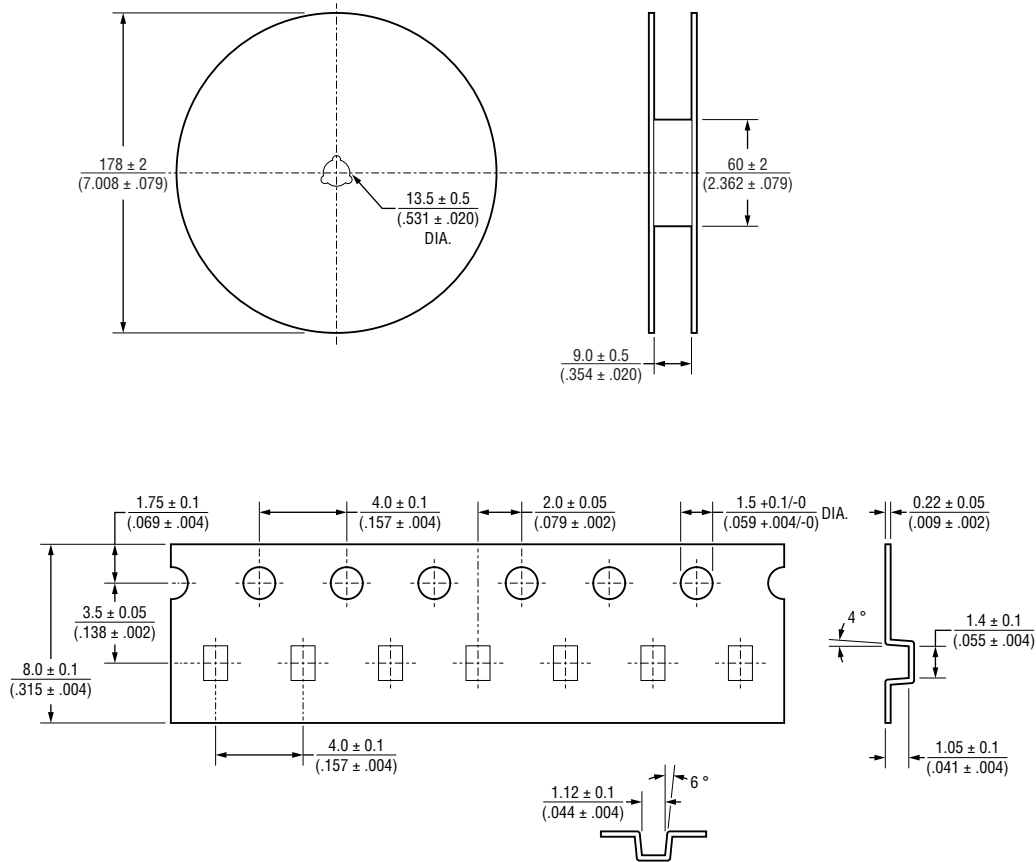
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SRF1209U4 Series – Common Mode Chip Inductor

BOURNS®

Packaging Specifications



USER DIRECTION OF FEED →
QTY: 3,000 PCS PER REEL

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

BOURNS®

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Mexico: Tel: +52-614-478-0400 • Email: mexicus@bourns.com

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