

- Features:
- Lower-cost alternative to carbon comps and wirewounds
 - Coating meets UL 94V-0
 - Meets solvent test of Mil Standard 202, Method 215
 - Cut and formed product is available on select sizes; contact factory for details
 - Higher or lower resistance values may be possible; contact factory
 - Flameproof
 - RoHS compliant / lead-free

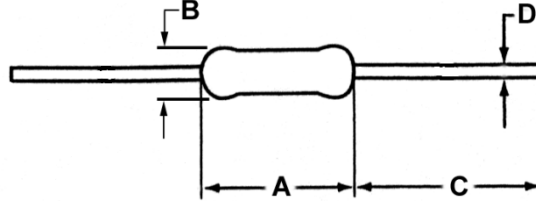


| Electrical Specifications | | | | | | | | |
|---------------------------|-----------------------------|-----------------------------|--------------------------|---------------------------------|------------------------------------|-------------------------------|------------|------------|
| Type / Code | Power Rating (Watts) @ 70°C | Maximum Working Voltage (1) | Maximum Overload Voltage | Dielectric Withstanding Voltage | Resistance Temperature Coefficient | Ohmic Range (Ω) and Tolerance | | |
| | | | | | | 1% | 2% | 5% |
| RSF12 | 0.5W | 250V | 400V | 600V | ±200 ppm/°C | 0.1 - 150K | 0.1 - 75K | 0.1 - 1M |
| RSF1 | 1W | 350V | 600V | 600V | ±200 ppm/°C | 0.1 - 100K | 0.1 - 100K | 0.1 - 1M |
| RSF2 | 2W | 350V | 600V | 600V | ±200 ppm/°C | 0.1 - 120K | 0.1 - 120K | 0.1 - 1M |
| RSF3 | 3W | 400V | 700V | 600V | ±200 ppm/°C | 0.1 - 470K | 0.1 - 560K | 0.1 - 1M |
| RSF5 | 5W | 750V | 1,000V | 1,000V | ±200 ppm/°C | 0.1 - 470K | 0.1 - 560K | 0.1 - 1M |
| RSMF12 | 0.5W | 250V | 400V | 350V | ±200 ppm/°C | 0.1 - 46.4K | 0.1 - 47K | 0.1 - 470K |
| RSMF1 | 1W | 350V | 600V | 500V | ±200 ppm/°C | 0.1 - 75K | 0.1 - 75K | 0.1 - 470K |
| RSMF2 | 2W | 350V | 600V | 500V | ±200 ppm/°C | 0.1 - 100K | 0.1 - 100K | 0.1 - 470K |
| RSMF3 | 3W | 500V | 800V | 500V | ±200 ppm/°C | 0.1 - 118K | 0.1 - 120K | 0.1 - 470K |
| RSMF5 | 5W | 750V | 1,000V | 750V | ±200 ppm/°C | 0.1 - 470K | 0.1 - 560K | 0.1 - 1M |

(1) Lesser of \sqrt{PR} or maximum working voltage

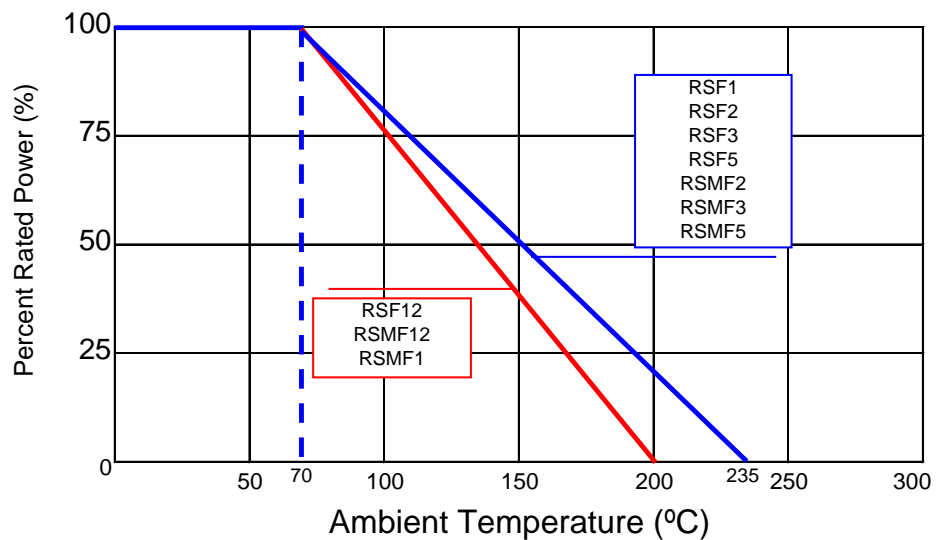
| Performance Characteristics | | | |
|---------------------------------|--------------------------|-------------|------------|
| Test | Standard / Method | Requirement | |
| | | RSMF Series | RSF Series |
| Short Time Over Load | JISC 5202 5.5 | ±2% | ±1% |
| Humidity | MIL-STD 202, Method 103 | ±1.5% | |
| Dielectric Withstanding Voltage | MIL-STD 202, Method 301 | ±0.5% | |
| Load Life | MIL-STD 202, Method 108 | ±2% | |
| Load Life in Humidity | JISC 5202 7.9 | ±2% | |
| Temperature Cycling | JESD22 Method JA-104 | ±1% | |
| Moisture Resistance | MIL-STD 202, Method 106 | ±0.5% | |
| Resistance to Solder Heat | MIL-STD 202, Method 210F | ±1% | |
| Terminal Strength | MIL-STD 202, Method 211 | ±0.2% | |
| Vibration | MIL-STD 202, Method 201 | ±0.5% | |

Operating Temperature Range: -55°C to +200°C (RSF12, RSMF12, RSMF1)
-55°C to +235°C (All others)

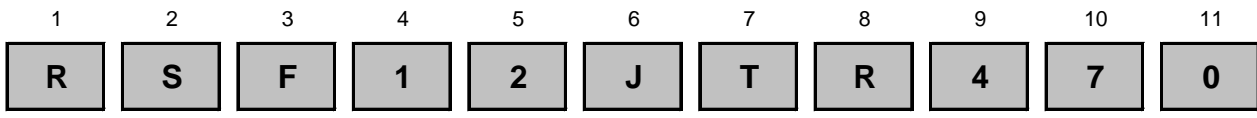


| Mechanical Specifications | | | | | |
|---------------------------|------------------|--------------------|-------------------------|--------------------|--------|
| Type / Code | A Body Length | B Body Diameter | C Lead Length (Bulk) | D Lead Diameter | Unit |
| RSF12 | 0.35 ± 0.04 | 0.14 ± 0.02 | 1.10 ± 0.12 | 0.02 ± 0.0004 | inches |
| | 9.00 ± 1.00 | 3.50 ± 0.50 | 28.00 ± 3.00 | 0.60 ± 0.01 | mm |
| RSF1 | 0.43 ± 0.04 | 0.18 ± 0.02 | 1.10 ± 0.20 | 0.03 ± 0.004 | inches |
| | 11.00 ± 1.00 | 4.50 ± 0.50 | 28.00 ± 5.00 | 0.70 ± 0.10 | mm |
| RSF2 | 0.59 ± 0.04 | 0.20 ± 0.04 | 1.34 ± 0.16 | 0.03 ± 0.004 | inches |
| | 15.00 ± 1.00 | 5.00 ± 1.00 | 34.00 ± 4.00 | 0.75 ± 0.10 | mm |
| RSF3 | 0.69 ± 0.08 | 0.26 ± 0.02 | 1.38 ± 0.12 | 0.03 ± 0.002 | inches |
| | 17.50 ± 2.00 | 6.50 ± 0.50 | 35.00 ± 3.00 | 0.80 ± 0.05 | mm |
| RSF5 | 0.96 ± 0.08 | 0.33 ± 0.02 | 1.38 ± 0.12 | 0.03 ± 0.002 | inches |
| | 24.50 ± 2.00 | 8.50 ± 0.50 | 35.00 ± 3.00 | 0.80 ± 0.05 | mm |
| RSMF12 | 0.26 ± 0.02 | 0.09 ± 0.01 | 1.10 ± 0.12 | 0.02 ± 0.003 | inches |
| | 6.50 ± 0.50 | 2.30 ± 0.20 | 28.00 ± 3.00 | 0.55 ± 0.07 | mm |
| RSMF1 | 0.35 ± 0.04 | 0.13 ± 0.02 | 1.10 ± 0.12 | 0.03 ± 0.0004 | inches |
| | 9.00 ± 1.00 | 3.20 ± 0.60 | 28.00 ± 3.00 | 0.65 ± 0.01 | mm |
| RSMF2 | 0.43 ± 0.04 | 0.17 ± 0.03 | 1.18 ± 0.20 | 0.03 ± 0.004 | inches |
| | 11.00 ± 1.00 | 4.20 ± 0.80 | 30.00 ± 5.00 | 0.75 ± 0.10 | mm |
| RSMF3 | 0.59 ± 0.04 | 0.20 ± 0.04 | 1.34 ± 0.16 | 0.03 ± 0.004 | inches |
| | 15.00 ± 1.00 | 5.00 ± 1.00 | 34.00 ± 4.00 | 0.75 ± 0.10 | mm |
| RSMF5 | 0.69 ± 0.08 | 0.26 ± 0.02 | 1.38 ± 0.08 | 0.03 ± 0.002 | inches |
| | 17.50 ± 2.00 | 6.50 ± 0.50 | 35.00 ± 2.00 | 0.80 ± 0.05 | mm |

Power Derating Curve:



How to Order



| Product Series | | Size | Power | Tolerance | | | Packaging | | | | Resistance Value |
|----------------|-------------|------|-------|-----------|-----|-------|-----------|----------------------------|-----------------------------|----------|--|
| Code | Description | | | Code | Tol | Value | Code | Description | Size | Quantity | |
| RSF | Metal Oxide | 12 | 0.5W | F | 1% | E96 | T | Tape and Reel | RSMF12 | 5,000 | Four characters with the multiplier used as the decimal holder. 0.22 ohm = R220 33.2 ohm = 33R2 10.2 Kohm = 10K2 1 Mohm = 1M00 |
| RSMF | Mini | 1 | 1W | G | 2% | E24 | | | RSF12, RSF1 RSMF1, RSMF2 | 2,500 | |
| PRSF(1) | Panasert | 2 | 2W | J | 5% | | | | RSF2, RSMF3 RSF3, RSMF5 | 1,000 | |
| | | 3 | 3W | | | | | | RSF5 | 500 | |
| | | 5 | 5W | | | | A | | Ammo | RSMF12 | |
| | | | | | | | | RSF12; RSMF1 | | 2,000 | |
| | | | | | | | | RSF1, RSMF2, RSMF3 | | 1,000 | |
| | | | | | | | | RSF2, RSF3, RSF5, RSMF5 | | 500 | |
| | | | | | | | B | Bulk | All Sizes | 1,000 | |

(1) For packaging information see Radial Leaded Packaging Spec page

Legacy Part Number (before January 3, 2011):

| SEI Type | Code | Nominal Resistance | Tolerance | Packaging | | | | | |
|-------------|--------------------|--------------------|----------------|------------------|---------------|------------------------------|------------|--------------------|-------------|
| RS | 1/2 | 0.47 | 5% | R | | | | | |
| Type | Description | Code | Wattage | Tolerance | Values | Types | Qty | Description | Code |
| RSF | Metal Oxide | 1/2 | 0.5W | 1% | E96 | RSMF12 | 5,000 | Tape and Reel | R |
| RSMF | Mini | 1 | 1W | 2% | E24 | RSF12, RSMF1, RSF1, RSMF2 | 2,500 | | |
| PRSF (1) | Panasert | 2 | 2W | 5% | E24 | RSF2, RSMF3 RSF3, RSMF5 | 1,000 | | |
| | | 3 | 3W | | | RSF5 | 500 | | |
| | | 5 | 5W | | | RSMF12 | 5,000 | | |
| | | | | | | RSF12, RSMF1 | 2,000 | Ammo | T |
| | | | | | | RSF1, RSMF2, RSMF3 | 1,000 | | |
| | | | | | | RSF2, RSF3, RSF5, RSMF5 | 500 | | |
| | | | | | | All | 1,000 | Bulk | A |

(1) For packaging information see Radial Leaded Packaging Spec page