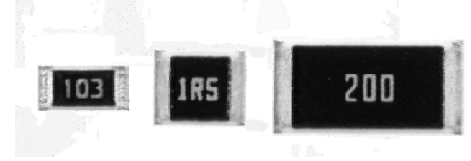


- Features:
- Nickel Barrier terminations standard
  - Power derating from 100% at 70°C to zero at +155°C
  - Zero ohm available (max resistance 0.05Ω)
  - RoHS compliant



| Electrical Specifications |               |                             |                             |                          |                 |  |   |   |
|---------------------------|---------------|-----------------------------|-----------------------------|--------------------------|-----------------|--|---|---|
| Type / Code               | Old Type Code | Power Rating (Watts) @ 70°C | Maximum Working Voltage (1) | Maximum Overload Voltage | Maximum Current | Resistance Temperature Coefficient                           | Ohmic Range (Ω) and Tolerance (2)                       |   |
|                           |               |                             |                             |                          |                 |  | 1%  | 5%  |
| RMCF0201                  | 1/20          | 0.05W                       | 25V                         | 50V                      | 1 Amp           | ± 400 ppm/°C<br>± 200 ppm/°C                                 | 1 ~ 9.76<br>10 ~ 10M                                    | 1 ~ 9.1<br>10 ~ 10M                                 |
| RMCF0402                  | 1/16S         | 0.063W                      | 50V                         | 100V                     | 1 Amp           | ± 300 ppm/°C<br>± 200 ppm/°C<br>± 100 ppm/°C<br>± 200 ppm/°C | 0.2 ~ 0.590<br>0.604 ~ 9.76<br>10.0 ~ 1M<br>1.02M ~ 10M | 0.2 ~ 0.56<br>0.62 ~ 9.1<br>10.0 ~ 1M<br>1.1M ~ 20M |
| RMCF0603                  | 1/16          | 0.1W                        | 50V                         | 100V                     | 1 Amp           | ± 600 ppm/°C<br>± 200 ppm/°C<br>± 100 ppm/°C<br>± 200 ppm/°C | 0.1 ~ 0.976<br>1 ~ 9.76<br>10 ~ 1M<br>1.02M ~ 10M       | 0.1 ~ 0.91<br>1 ~ 20M<br>-<br>-                     |
| RMCF0805                  | 1/10          | 0.125W                      | 150V                        | 300V                     | 2 Amp           | ± 200 ppm/°C<br>± 100 ppm/°C<br>± 200 ppm/°C                 | 0.1 ~ 9.76<br>10 ~ 1M<br>1.02M ~ 10M                    | 0.1 ~ 20M<br>-<br>-                                 |
| RMCF1206                  | 1/8           | 0.25W                       | 200V                        | 400V                     | 2 Amp           | ± 200 ppm/°C<br>± 100 ppm/°C<br>± 200 ppm/°C                 | 0.1 ~ 9.76<br>10 ~ 1M<br>1.02M ~ 10M                    | 0.1 ~ 20M<br>-<br>-                                 |
| RMCF1210                  | 1/4           | 0.33W(3)                    | 200V                        | 400V                     | 3 Amp           | ± 200 ppm/°C<br>± 400 ppm/°C<br>± 200 ppm/°C<br>± 100 ppm/°C | 0.1 ~ 0.976<br>1 ~ 9.76<br>-<br>10 ~ 10M                | 0.1 ~ 0.91<br>1 ~ 9.1<br>10 ~ 20M<br>-              |
| RMCF2010                  | 1/2           | 0.75W(3)                    | 200V                        | 400V                     | 3 Amp           | ± 200 ppm/°C<br>± 400 ppm/°C<br>± 200 ppm/°C<br>± 100 ppm/°C | 0.1 ~ 0.976<br>1 ~ 9.76<br>-<br>10 ~ 10M                | 0.1 ~ 0.91<br>1 ~ 9.1<br>10 ~ 10M<br>-              |
| RMCF2512                  | 1             | 1W                          | 200V                        | 400V                     | 3 Amp           | ± 200 ppm/°C<br>± 400 ppm/°C<br>± 200 ppm/°C<br>± 100 ppm/°C | 0.1 ~ 0.976<br>1 ~ 9.76<br>-<br>10 ~ 10M                | 0.1 ~ 0.91<br>1 ~ 9.1<br>10 ~ 10M<br>-              |

(1) Lesser of √PR or maximum working voltage.

(2) Contact factory for extended ohmic values.

(3) Power rating is 0.500W for ohmic values below 1Ω



| Mechanical Specifications |                              |   |                              |                              |                              |              |
|---------------------------|------------------------------|---|------------------------------|------------------------------|------------------------------|--------------|
| Type / Code               | L<br>Body Length             | W<br>Body Width                                 | H<br>Body Height             | a<br>Top Termination         | b<br>Bottom Termination      | Units        |
| RMCF0201                  | 0.024 ± 0.001<br>0.60 ± 0.03 | 0.011 ± 0.001<br>0.30 ± 0.03                    | 0.010 ± 0.002<br>0.25 ± 0.05 | 0.006 ± 0.002<br>0.15 ± 0.05 | 0.006 ± 0.002<br>0.15 ± 0.05 | inches<br>mm |
| RMCF0402                  | 0.039 ± 0.004<br>1.00 ± 0.10 | 0.020 ± 0.002<br>0.50 ± 0.05                    | 0.011 ± 0.004<br>0.30 ± 0.10 | 0.008 ± 0.004<br>0.20 ± 0.10 | 0.010 ± 0.004<br>0.25 ± 0.10 | inches<br>mm |
| RMCF0603                  | 0.061 ± 0.006<br>1.55 ± 0.15 | 0.031 + 0.006 / - 0.004<br>0.80 + 0.15 / - 0.10 | 0.018 ± 0.004<br>0.45 ± 0.10 | 0.012 ± 0.008<br>0.30 ± 0.20 | 0.012 ± 0.008<br>0.30 ± 0.20 | inches<br>mm |
| RMCF0805                  | 0.079 ± 0.008<br>2.00 ± 0.20 | 0.049 ± 0.004<br>1.25 ± 0.10                    | 0.020 ± 0.006<br>0.50 ± 0.15 | 0.014 ± 0.010<br>0.35 ± 0.25 | 0.014 ± 0.010<br>0.35 ± 0.25 | inches<br>mm |
| RMCF1206                  | 0.126 ± 0.010<br>3.20 ± 0.25 | 0.063 ± 0.006<br>1.60 ± 0.15                    | 0.021 ± 0.006<br>0.55 ± 0.15 | 0.020 ± 0.012<br>0.50 ± 0.30 | 0.020 ± 0.012<br>0.50 ± 0.30 | inches<br>mm |
| RMCF1210                  | 0.126 ± 0.010<br>3.20 ± 0.25 | 0.098 ± 0.008<br>2.50 ± 0.20                    | 0.021 ± 0.006<br>0.55 ± 0.15 | 0.020 ± 0.012<br>0.50 ± 0.30 | 0.020 ± 0.012<br>0.50 ± 0.30 | inches<br>mm |
| RMCF2010                  | 0.197 ± 0.008<br>5.00 ± 0.20 | 0.098 ± 0.008<br>2.5 ± 0.20                     | 0.021 ± 0.006<br>0.55 ± 0.15 | 0.024 ± 0.012<br>0.60 ± 0.30 | 0.024 ± 0.014<br>0.60 ± 0.35 | inches<br>mm |
| RMCF2512                  | 0.248 ± 0.008<br>6.30 ± 0.20 | 0.126 ± 0.008<br>3.20 ± 0.20                    | 0.021 ± 0.006<br>0.55 ± 0.15 | 0.024 ± 0.012<br>0.60 ± 0.30 | 0.024 ± 0.014<br>0.60 ± 0.35 | inches<br>mm |

| Performance Characteristics     |   |                                  |
|---------------------------------|---|----------------------------------|
| Test                            | Test Conditions (JIS C 5202)  | Test Results                     |
| Short Time Overload             | 2.5x rated voltage for 5 seconds  | ± (2% + 0.1Ω)                    |
| Dielectric Withstanding Voltage | 100 VAC, 1 minute   | ± (1% + 0.05Ω)                   |
| Resistance to Soldering Heat    | 260°C ±5°C, for 10 sec. ±0.5 sec. (Solder Bath)   | ± 1%                             |
| Solderability                   | 235°C ±5°C, for 2 sec. ±0.5 sec. (Colophonium flux)                                     | 95% coverage, minimum            |
| Temperature Cycle               | -65°C: 30 min. 25°C: 2 to 3 min.<br>155°C: 30 min. 25°C: 2 to 3 min.<br>(5 Cycles)      | ±(1% + 0.05Ω)<br>Jumper (<0.05Ω) |
| Endurance (Damp load)           | 40°C ± 2°C, 90% RH, Rated Load<br>90 min. On, 30 min. Off for 1,000 hrs. -0hrs./+48hrs. | ±(3% + 0.1Ω)<br>Jumper (<0.05Ω)  |
| Endurance (Rated load)          | 70°C ± 2°C, Rated Load<br>90 min. On, 30 min. Off for 1,000 hrs. -0hrs./+48hrs.         | ±(3% + 0.1Ω)<br>Jumper (<0.05Ω)  |
| Voltage Coefficient             | 1/10 rated voltage for 3 sec. max. then rated voltage for 3 sec. max.                   | ±100 (ppm/V)                     |
| Robustness of Termination       | Bend of 3mm for 5 ± 1 sec.  | ± (1% + 0.05 Ohm)                |

Operating Temperature Range: -55°C to +125°C (0201 size)  
-55°C to +155°C (all others)

**How to Order**

|          |          |          |          |          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1        | 2        | 3        | 4        | 5        | 6        | 7        | 8        | 9        | 10       | 11       | 12       | 13       | 14       |
| <b>R</b> | <b>M</b> | <b>C</b> | <b>F</b> | <b>0</b> | <b>6</b> | <b>0</b> | <b>3</b> | <b>J</b> | <b>T</b> | <b>4</b> | <b>K</b> | <b>7</b> | <b>0</b> |

| Product Series |                           | Size | Power  | Tolerance |        | Packaging |                       |                  |        | Resistance Value  |
|----------------|---------------------------|------|--------|-----------|--------|-----------|-----------------------|------------------|--------|---|
| RMCF           | Thick Film Chip Resistors | 0201 | 0.05W  | Code      | Tol    | T         | 7" reel - paper tape  | 0201             | 15,000 | Four characters with the multiplier used as the decimal holder.<br>0.1 ohm = R100<br>4.70 ohm = 4R70<br>10.0 Kohm = 10K0<br>1 Mohm = 1M00<br>Zero ohm jumper = 0R00 |
|                |                           | 0402 | 0.063W | F         | 1%     |           |                       | 0402             | 10,000 |   |
|                |                           | 0603 | 0.1W   | J         | 5%     | G         | 10" reel - paper tape | 0603, 0805, 1206 | 5,000  |   |
|                |                           | 0805 | 0.125W | Z         | jumper |           |                       | 1210, 2010, 2512 | 4,000  |   |
|                |                           | 1206 | 0.25W  |           |        |           |                       | 0603, 0805, 1206 | 10,000 |   |
|                |                           | 1210 | 0.33W  |           |        | B         | bulk                  | 0603, 0805, 1206 | 1,000  |   |
|                |                           | 2010 | 0.75W  |           |        |           |                       |                  |        |   |
|                |                           | 2512 | 1W     |           |        |           |                       |                  |        |   |

Legacy Part Number (before January 3, 2011):

| SEI Type   |             | Code        |         |      | Nominal Resistance | Tolerance |                  | Packaging |                        |      |  |
|------------|-------------|-------------|---------|------|--------------------|-----------|------------------|-----------|------------------------|------|--|
| <b>RMC</b> |             | <b>1/16</b> |         |      | <b>4.7K</b>        | <b>5%</b> |                  | <b>R</b>  |                        |      |  |
| Type       | Description | Code        | Wattage | Size | Tolerance          |           | SEI Types        | Pkg Qty   | Description            | Code |  |
| RMC        | Standard    | 1/20        | 0.05W   | 0201 | 1%                 | E96, E24  | 0201             | 15,000    | 7" reel - paper tape   | R    |  |
| RMCF       | RoHS        | 1/16S       | 0.063W  | 0402 | 5%                 | E24       | 0402             | 10,000    | 10" reel - paper tape  | G    |  |
|            |             | 1/16        | 0.1W    | 0603 |                    |           | 0603, 0805, 1206 | 10,000    | 7" reel - paper tape   | R    |  |
|            |             | 1/10        | 0.125W  | 0805 |                    |           |                  | 5,000     | bulk                   | A    |  |
|            |             | 1/8         | 0.25W   | 1206 |                    |           | 1,000            | 4,000     | 7" reel - plastic tape | R    |  |
|            |             | 1/4         | 0.33W   | 1210 |                    |           |                  |           |                        |      |  |
|            |             | 1/2         | 0.75W   | 2010 |                    |           |                  |           |                        |      |  |
|            |             | 1           | 1W      | 2512 |                    |           |                  |           |                        |      |  |