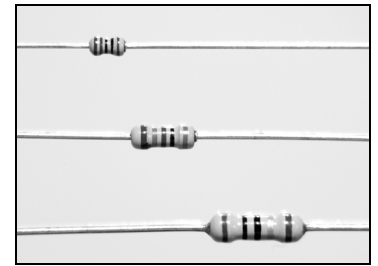


# RNM Series — General Purpose Metal Film Resistors

## Features

- Precision metal film
- Superior electrical, TCR performance
- Pana-Sert available (selected sizes, contact factory)
- RNM (mini) an ideal choice where size constraints apply
- Flame-retardant coatings are standard
- RoHS compliant available (RNMF)

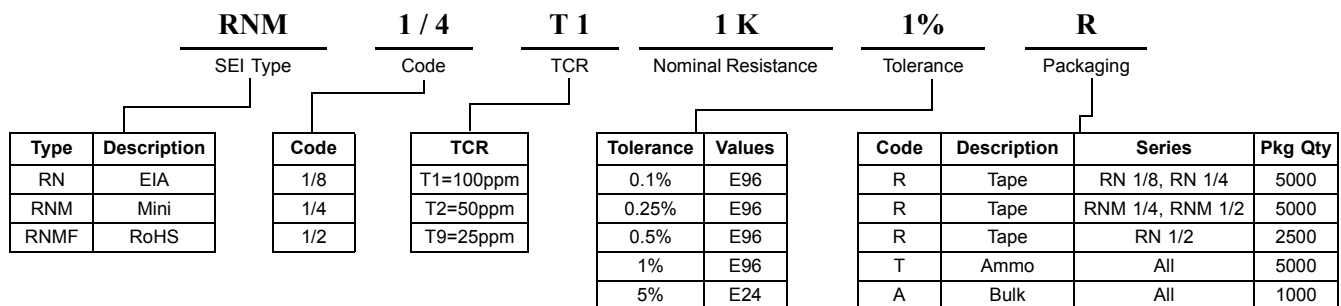


## Electrical Specifications

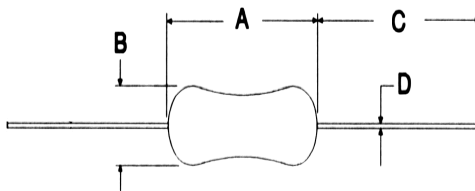
| Type/Code | Power Rating (Watts) @ 70°C | Max Working Voltage* | Max Pulse Voltage | Resistance Temperature Coefficient        | Ohmic Range and Tolerance                 |   |                                      |   |                     |
|-----------|-----------------------------|----------------------|-------------------|---|---|---|--------------------------------------|---|---------------------|
|           |                             |                      |                   |   | 0.1%                                      | 0.25%                                     | 0.5%                                 | 1%                                      | 5%                  |
| RN 1/8    | 0.125W                      | 200                  | 400               | ±100 ppm/°C<br>± 50 ppm/°C<br>± 25 ppm/°C | 100Ω – 100K<br>100Ω – 100K<br>100Ω – 100K | 100Ω – 100K<br>100Ω – 100K<br>100Ω – 100K | 10Ω – 1M<br>10Ω – 1M<br>30.1Ω – 499K | 10Ω – 2.37M<br>10Ω – 1M<br>49.9Ω – 499K | 1Ω – 2.2M<br>–<br>– |
| RN 1/4    | 0.25W                       | 250                  | 500               | ±100 ppm/°C<br>± 50 ppm/°C<br>± 25 ppm/°C | 30.1Ω – 1M<br>30.1Ω – 1M<br>30.1Ω – 1M    | 30.1Ω – 1M<br>30.1Ω – 1M<br>30.1Ω – 1M    | 10Ω – 1M<br>10Ω – 1M<br>30.1Ω – 1M   | 1Ω – 10M<br>1Ω – 5.11M<br>30.1Ω – 1M    | 1Ω – 10M<br>–<br>–  |
| RN 1/2    | 0.5W                        | 350                  | 700               | ±100 ppm/°C<br>± 50 ppm/°C<br>± 25 ppm/°C | 100Ω – 100K<br>100Ω – 100K<br>100Ω – 100K | 100Ω – 100K<br>100Ω – 100K<br>100Ω – 100K | 10Ω – 1M<br>10Ω – 1M<br>49.9Ω – 499K | 1Ω – 10M<br>1Ω – 4.99M<br>49.9Ω – 499K  | 1Ω – 10M<br>–<br>–  |
| RNM 1/4   | 0.25W                       | 250                  | 500               | ±100 ppm/°C<br>± 50 ppm/°C<br>± 25 ppm/°C | 100Ω – 100K<br>100Ω – 100K<br>100Ω – 100K | 100Ω – 100K<br>100Ω – 100K<br>100Ω – 100K | 10Ω – 1M<br>10Ω – 1M<br>30.1Ω – 499K | 10Ω – 2.15M<br>10Ω – 1M<br>30.1Ω – 499K | –<br>–<br>–         |
| RNM 1/2   | 0.5W                        | 350                  | 700               | ±100 ppm/°C<br>± 50 ppm/°C<br>± 25 ppm/°C | 30.1Ω – 1M<br>30.1Ω – 1M<br>100Ω – 294K   | 30.1Ω – 1M<br>30.1Ω – 1M<br>100Ω – 294K   | 10Ω – 1M<br>10Ω – 1M<br>49.9Ω – 1M   | 10Ω – 10M<br>10Ω – 2.15M<br>49.9Ω – 1M  | –<br>–<br>–         |

\* Lesser of  $\sqrt{PR}$  or maximum working voltage.

## How to Order



# RNM Series — General Purpose Metal Film Resistors



| Mechanical Specifications |                  | inches<br>mm       |                         |                    |
|---------------------------|------------------|--------------------|-------------------------|--------------------|
| Type                      | A<br>Body Length | B<br>Body Diameter | C<br>Lead Length (Bulk) | D<br>Lead Diameter |
| RN 1/8                    | 0.13 ± 0.01/-0   | 0.073 ± 0.006      | 1.10 ± 0.08             | 0.018 ± 0.002      |
|                           | 3.2 ± 0.2/-0     | 1.85 ± 0.20        | 28.0 ± 2.0              | 0.45 ± 0.05        |
| RN 1/4                    | 0.24 ± 0.01      | 0.09 ± 0.01        | 1.10 ± 0.08             | 0.023 ± 0.002      |
|                           | 6.0 ± 0.3        | 2.4 ± 0.2          | 28.0 ± 2.0              | 0.60 ± 0.05        |
| RN 1/2                    | 0.33 ± 0.02      | 0.11 ± 0.01        | 1.10 ± 0.08             | 0.027 ± 0.002      |
|                           | 8.5 ± 0.5        | 2.8 ± 0.3          | 28.0 ± 2.0              | 0.70 ± 0.05        |
| RNM 1/4                   | 0.13 ± 0.01/-0   | 0.073 ± 0.006      | 1.10 ± 0.08             | 0.018 ± 0.002      |
|                           | 3.2 ± 0.2/-0     | 1.85 ± 0.20        | 28.0 ± 2.0              | 0.45 ± 0.05        |
| RNM 1/2                   | 0.24 ± 0.01      | 0.09 ± 0.01        | 1.10 ± 0.08             | 0.023 ± 0.002      |
|                           | 6.0 ± 0.3        | 2.4 ± 0.2          | 28.0 ± 2.0              | 0.60 ± 0.05        |

| Performance Characteristics |                         |             |
|-----------------------------|-------------------------|-------------|
| Test                        | Standard / Method       | Requirement |
| Biased Humidity             | MIL-STD 202, Method 103 | ± 1.5%      |
| Resistance to Solder Heat   | MIL-STD 202, Method 210 | ± 0.5%      |
| Insulation Resistance       | JIS C 5202 5.6          | ± 0.5%      |
| Load Life                   | MIL-STD 202, Method 208 | ± 1.0%      |
| Terminal Strength           | MIL-STD 202, Method 211 | ± 0.2%      |
| Temperature Cycling         | JESD22 Method JA-104    | ± 1.0%      |
| Moisture Resistance         | MIL-STD 202, Method 106 | ± 0.5%      |