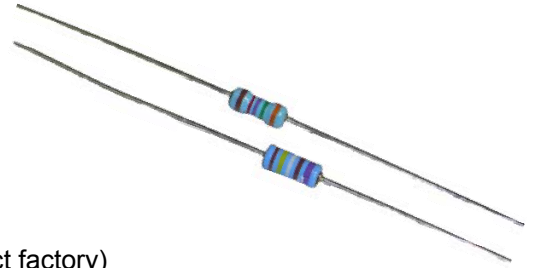
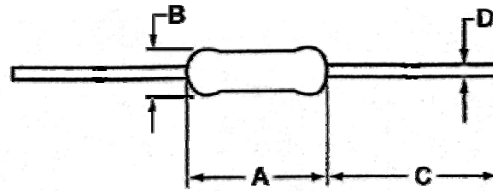


- Features:
- Precision metal film
  - Superior electrical, TCR performances
  - Flame-retardant coatings are standard
  - Panasert available (selected sizes: contact factory)
  - RNMF (mini) an ideal choice where size constraints apply
  - RNS (ultra-mini) for tight size constraints
  - RNF 5% replaces MP series
  - RoHS compliant / lead-free
  - Lower or higher resistance values may be possible (contact factory)



Electrical Specifications											
Type / Code	Mil Ref	Power Rating (Watts) @ 70°C	Maximum Working Voltage (Vrms) (1)	Maximum Overload Voltage (Vrms)	Resistance Temperature Coefficient	Ohmic Range (Ω) and Tolerance					
						0.1%	0.25%	0.5%	1%	2%	5%
RNF18	RN 50	0.125W	200V	400V	±25 ppm/°C	100 - 100K	100 - 100K	30.1 - 499K	49.9 - 499K	-	-
					±50 ppm/°C	100 - 100K	100 - 100K	10 - 1M	1.0 - 1M	-	-
					±100 ppm/°C	51.1 - 97.6	100 - 100K	10 - 1M	1.0 - 22M	1.0 - 22M	1.0 - 22M
RNF14	RN 55	0.25W	250V	500V	±10 ppm/°C	100 - 100K	-	-	-	-	-
					±25 ppm/°C	1.0 - 2.2M	1.0 - 2.2M	1.0 - 2.2M	10 - 1M	-	-
					±50 ppm/°C	1.0 - 2.2M	1.0 - 2.2M	1.0 - 2.2M	1.0 - 1M	-	-
					±100 ppm/°C	1.0 - 2.2M	1.0 - 2.2M	1.0 - 2.2M	1.0 - 1M	1.0 - 10M	1.0 - 10M
RNF12	RN 60	0.5W	350V	700V	±25 ppm/°C	100 - 300K	100 - 100K	49.9 - 499K	49.9 - 499K	-	-
					±50 ppm/°C	100 - 100K	100 - 100K	10 - 1M	1.0 - 4.99M	-	-
					±100 ppm/°C	100 - 100K	100 - 100K	10 - 1M	1.0 - 10M	1.0 - 10M	1.0 - 10M
RNF1	RN 65	1W	350V	700V	±25 ppm/°C	-	-	10 - 1M	10 - 470K	-	-
					±50 ppm/°C	-	-	10 - 1M	1.0 - 1M	-	-
					±100 ppm/°C	-	-	10 - 1M	1.0 - 1M	-	-
RNF2	-	2W	350V	800V	±25 ppm/°C	-	-	10 - 511K	10 - 1M	-	-
					±50 ppm/°C	-	-	10 - 511K	10 - 1M	-	-
					±100 ppm/°C	-	-	10 - 511K	10 - 1M	-	10 - 1M
RNMF14	-	0.25W	200V	400V	±25 ppm/°C	100 - 100K	100 - 100K	30.1 - 499K	49.9 - 499K	-	-
					±50 ppm/°C	100 - 100K	100 - 100K	1.0 - 1M	1.0 - 1M	-	-
					±100 ppm/°C	100 - 100K	100 - 100K	1.0 - 1M	1.0 - 2.15M	1.0 - 2.2M	1.0 - 2.2M
RNMF12	RL 07	0.53	350V	600V	±25 ppm/°C	30.1 - 294K	30.1 - 294K	49.9 - 1M	49.9 - 1M	-	-
					±50 ppm/°C	30.1 - 1M	30.1 - 1M	10 - 1M	1.0 - 1M	-	-
					±100 ppm/°C	30.1 - 1M	30.1 - 1M	10 - 1M	1.0 - 10M	1.0 - 10M	1.0 - 10M
RNS12	-	0.5W	200V	400V	±50 ppm/°C ±100 ppm/°C	- -	- -	10 - 1M	10 - 1M	- -	- -
RNS1	-	1W	350V	600V	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C	- - -	- - -	100 - 511K	10 - 1M	- - -	- - -
RNS2	-	2W	350V	700V	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C	- - -	- - -	100 - 511K	10 - 1M	- - -	- - -

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

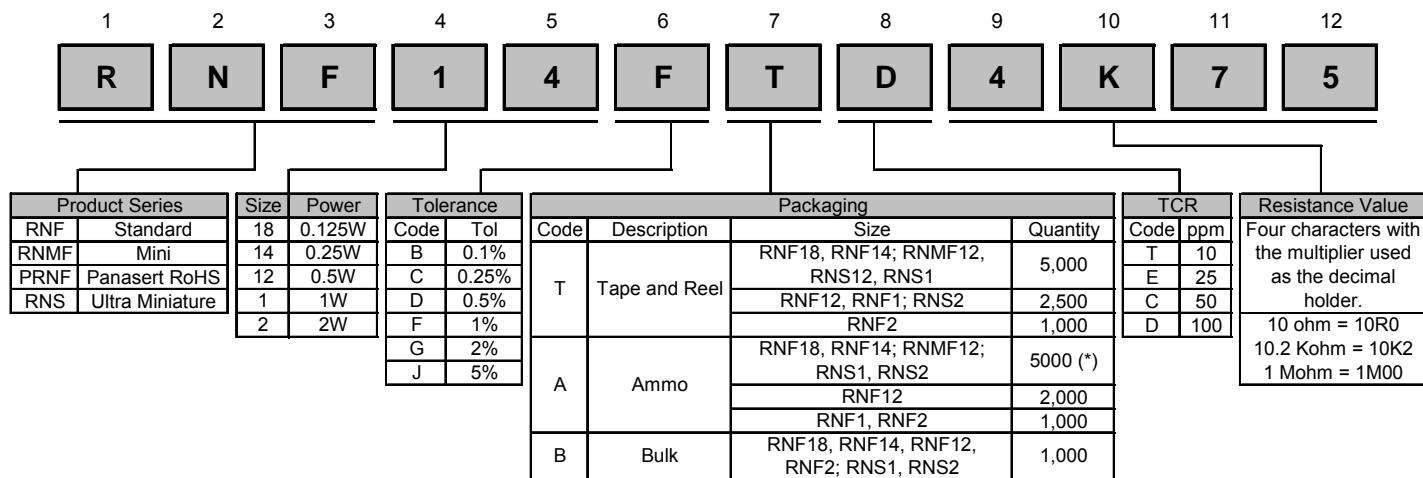


Mechanical Specifications					
Type / Code	A Body Length	B Body Diameter	C Lead Length (Bulk)	D Lead Diameter	Unit
RNF18	0.13 ± 0.012	0.070 ± 0.012	1.10 ± 0.12	0.018 ± 0.003	inches
	3.30 ± 0.30	1.80 ± 0.30	28.00 ± 3.00	0.45 ± 0.07	mm
RNF14	0.25 ± 0.026	0.093 ± 0.010	1.10 ± 0.12	0.022 ± 0.003	inches
	6.35 ± 0.65	2.35 ± 0.25	28.00 ± 3.00	0.56 ± 0.08	mm
RNF12	0.34 ± 0.030	0.108 ± 0.039	1.10 ± 0.197	0.26 ± 0.004	inches
	8.75 ± 0.75	2.75 ± 1.00	28.00 ± 5.00	0.65 ± 0.10	mm
RNF1	0.433 ± 0.04	0.177 ± 0.02	1.18 ± 0.12	0.030 ± 0.002	inches
	11.00 ± 1.00	4.50 ± 0.50	30.00 ± 3.00	0.75 ± 0.05	mm
RNF2	0.59 ± 0.04	0.2 ± 0.02	1.18 ± 0.12	0.027 ± 0.004	inches
	15.00 ± 1.00	5.00 ± 0.50	30.00 ± 3.00	0.70 ± 0.10	mm
RNMF14	0.13 ± 0.011	0.070 ± 0.003	1.10 ± 0.12	0.017 ± 0.002	inches
	3.30 ± 0.30	1.78 ± 0.08	28.00 ± 3.00	0.44 ± 0.05	mm
RNMF12	0.25 ± 0.026	0.093 ± 0.010	1.10 ± 0.12	0.022 ± 0.003	inches
	6.35 ± 0.65	2.35 ± 0.25	28.00 ± 3.00	0.56 ± 0.08	mm
RNS12	0.13 ± 0.01	0.07 ± 0.01	1.10 ± 0.08	0.017 ± 0.002	inches
	3.40 ± 0.40	1.80 ± 0.30	28.00 ± 2.00	0.43 ± 0.05	mm
RNS1	0.26 ± 0.02	0.09 ± 0.006	1.10 ± 0.08	0.022 ± 0.002	inches
	6.50 ± 0.50	2.30 ± 0.20	28.00 ± 2.00	0.56 ± 0.05	mm
RNS2	0.35 ± 0.02	0.14 ± 0.02	1.10 ± 0.08	0.31 ± 0.004	inches
	9.00 ± 0.50	3.50 ± 0.50	28.00 ± 2.00	0.80 ± 0.10	mm

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%
Terminal Strength	MIL-STD 202, Method 211	± 0.2%
Temperature Cycling	JESD22 Method JA-104	± 1%
Moisture Resistance	MIL-STD 202, Method 106	± 0.5%

Operating Temperature Range: -55°C to +155°C

**How to Order**



(\*) Precision metal film resistors with tolerances <1% may be available in smaller quantities. Contact factory for more details.

Legacy Part Number (before January 3, 2011):

SEI Type		Code	TCR	Nominal Resistance	Tolerance	Packaging			
<b>RNF</b>		<b>1/4</b>	<b>T1</b>	<b>4.75K</b>	<b>1%</b>	<b>R</b>			
Type	Description	Code	TCR	Tol	Values	SEI Types	Pkg Qty	Code	Description
RNF	Standard	1/8	T1 100ppm	0.1%	E96	RNF18, RNF14, RNMF12, RNS12, RNS1	5,000	R	Tape and Reel
RNMF	Mini	1/4	T2 50ppm	0.25%	E96	RNF12, RNF1, RNS2	2,500		
RNS	Ultra-Mini	1/2	T9 25ppm	0.5%	E96	RNF2	1,000	T	Ammo
PRN	Panasert	1	TB 10ppm	1%	E96, E24	RNF18, RNF14, RNMF12, RNS1, RNS2	5000 (*)		
PRNF	Pana - RoHS	2		5%	E24	RNF12	2,000		
						RNF1, RNF2	1,000	A	Bulk
						RNF18, RNF14, RNF12, RNF2, RNS1, RNS2	1,000		

(\*) Precision metal film resistors with tolerances <1% may be available in smaller quantities. Contact factory for more details.