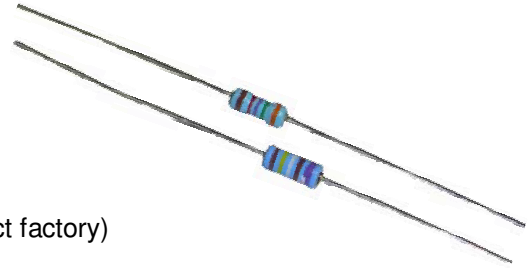
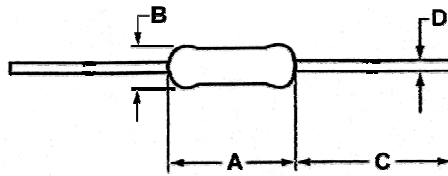


- Features:
- Precision metal film
  - Superior electrical, TCR performances
  - Flame-retardant coatings are standard
  - Panasert available (selected sizes: contact factory)
  - RNMF (mini) an ideal choice where size constraints apply
  - RNF 5% replaces MP series
  - RoHS compliant / lead-free
  - 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						
						0.05%	0.1%	0.25%	0.5%	1%	2%	5%
RNF18	RN 50	0.125W	200V	400V	±10 ppm/°C	100 - 100K	100 - 100K	100 - 100K	100 - 100K	100 - 100K	-	-
					±25 ppm/°C	100 - 100K	100 - 100K	100 - 100K	30.1 - 499K	49.9 - 499K	-	-
					±50 ppm/°C	100 - 100K	100 - 100K	100 - 100K	10 - 1M	1 - 1M	-	-
					±100 ppm/°C	100 - 100K	51.1 - 100K	100 - 100K	10 - 1M	1 - 10M	1 - 22M	1 - 22M
RNF14	RN 55	0.25W	250V	500V	±10 ppm/°C	100 - 100K	100 - 100K	-	-	-	-	-
					±25 ppm/°C	100 - 100K	1 - 2.2M	1 - 2.2M	1 - 2.2M	10 - 1M	-	-
					±50 ppm/°C	100 - 100K	1 - 2.2M	1 - 2.2M	1 - 2.2M	1 - 5.11M	-	1.1M - 10M
					±100 ppm/°C	100 - 100K	1 - 2.2M	1 - 2.2M	1 - 2.2M	1 - 10M	5.6 - 10M	1 - 10M
RNF12	RN 60	0.5W	350V	700V	±25 ppm/°C	100 - 100K	100 - 300K	100 - 100K	49.9 - 499K	49.9 - 499K	-	-
					±50 ppm/°C	100 - 100K	100 - 100K	100 - 100K	10 - 1M	1 - 4.99M	-	-
					±100 ppm/°C	100 - 100K	100 - 100K	100 - 100K	10 - 1M	1 - 10M	1 - 10M	1 - 10M
RNF1	RN 65	1W	350V	700V	±25 ppm/°C	-	-	-	-	-	-	-
					±50 ppm/°C	-	-	-	10 - 1M	10 - 470K	-	-
					±100 ppm/°C	-	-	-	10 - 1M	1 - 1M	-	-
RNF2	-	2W	350V	800V	±25 ppm/°C	-	-	-	-	-	-	-
					±50 ppm/°C	-	-	-	-	10 - 1M	-	-
					±100 ppm/°C	-	-	-	-	10 - 1M	-	10 - 1M
RNMF14	-	0.25W	200V	400V	±25 ppm/°C	-	100 - 100K	100 - 100K	30.1 - 499K	30.1 - 499K	-	-
					±50 ppm/°C	-	100 - 100K	100 - 100K	10 - 1M	1 - 1M	-	-
					±100 ppm/°C	-	100 - 100K	100 - 100K	10 - 1M	1 - 2.15M	1 - 2.2M	1 - 2.2M
RNMF12	RL 07	0.5W	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 - 1M	-	-
					±100 ppm/°C	-	30.1 - 1M	30.1 - 1M	10 - 1M	1 - 10M	1 - 10M	1 - 10M

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

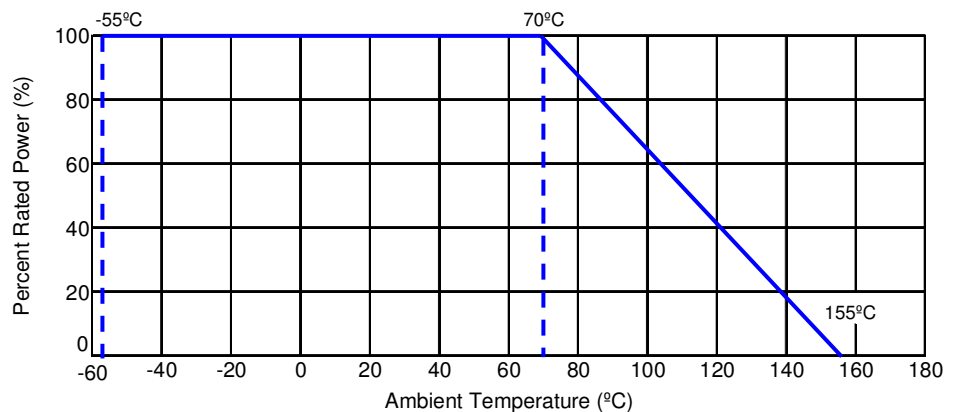


Mechanical Specifications					
Type / Code	A Body Length	B Body Diameter	C Lead Length (Bulk)	D Lead Diameter	Unit
RNF18	0.130 ± 0.012	0.071 ± 0.012	1.102 ± 0.118	0.018 ± 0.003	inches
	3.30 ± 0.30	1.80 ± 0.30	28.00 ± 3.00	0.45 ± 0.07	mm
RNF14	0.250 ± 0.026	0.093 ± 0.010	1.102 ± 0.118	0.022 ± 0.003	inches
	6.35 ± 0.65	2.35 ± 0.25	28.00 ± 3.00	0.56 ± 0.08	mm
RNF12	0.344 ± 0.030	0.108 ± 0.039	1.102 ± 0.197	0.026 ± 0.004	inches
	8.75 ± 0.75	2.75 ± 1.00	28.00 ± 5.00	0.65 ± 0.10	mm
RNF1	0.433 ± 0.039	0.177 ± 0.020	1.181 ± 0.118	0.030 ± 0.002	inches
	11.00 ± 1.00	4.50 ± 0.50	30.00 ± 3.00	0.75 ± 0.05	mm
RNF2	0.591 ± 0.039	0.197 ± 0.020	1.339 ± 0.157	0.028 ± 0.004	inches
	15.00 ± 1.00	5.00 ± 0.50	34.00 ± 4.00	0.70 ± 0.10	mm
RNMF14	0.130 ± 0.012	0.070 ± 0.003	1.102 ± 0.118	0.017 ± 0.002	inches
	3.30 ± 0.30	1.78 ± 0.08	28.00 ± 3.00	0.44 ± 0.05	mm
RNMF12	0.250 ± 0.026	0.093 ± 0.010	1.102 ± 0.118	0.022 ± 0.003	inches
	6.35 ± 0.65	2.35 ± 0.25	28.00 ± 3.00	0.56 ± 0.08	mm

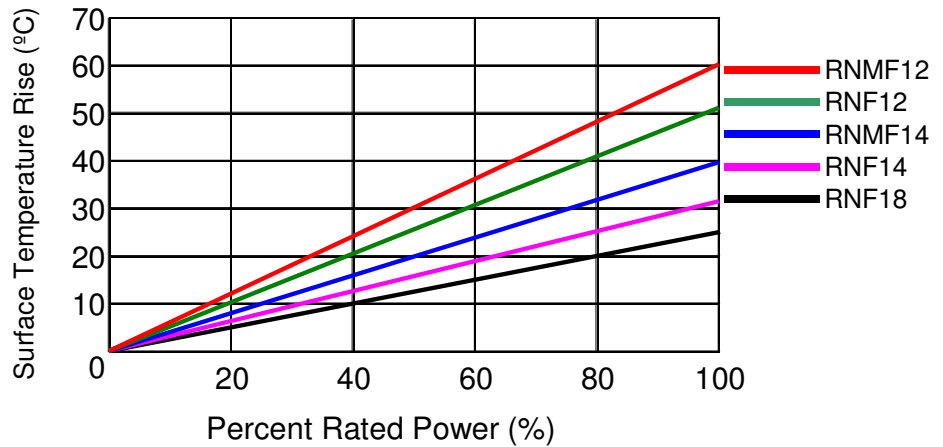
Performance Characteristics		
Test	Standard / Method	Requirement
Biased Humidity	MIL-STD 202, Method 103	± 1.5%
Resistance to Solder Heat	MIL-STD 202, Method 210	± 0.5%
Insulation Resistance	JIS C 5202 5.6	± 0.5%
Load Life	MIL-STD 202, Method 108	± 1%
Terminal Strength	MIL-STD 202, Method 211	± 0.2%
Temperature Cycling	JESD22 Method JA-104	± 1%
Moisture Resistance	MIL-STD 202, Method 106	± 0.5%

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

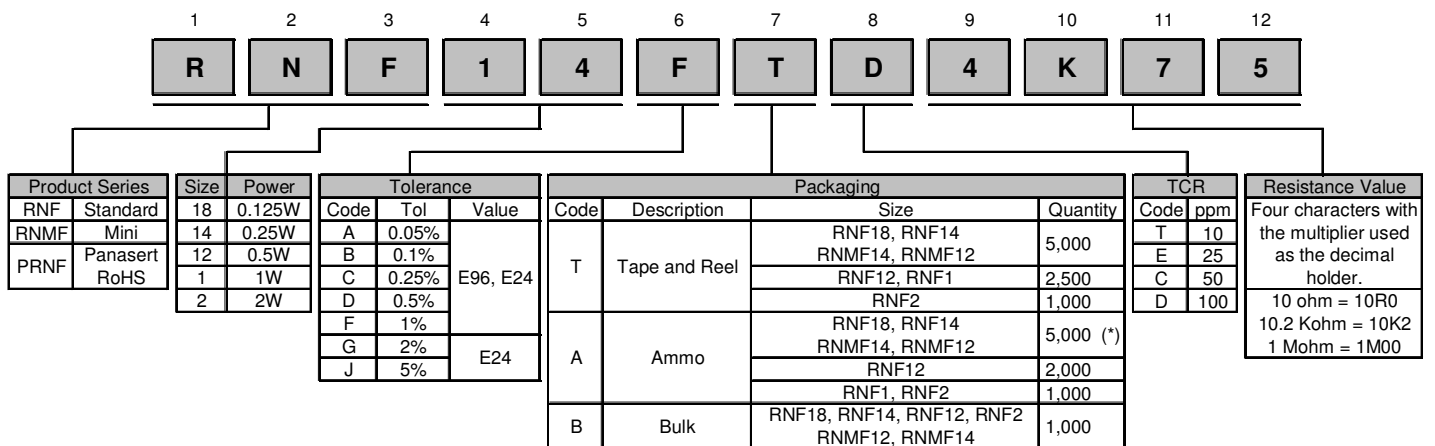
**Power Derating Curve:**



Surface Temperature Rise:



**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					
RNF		1/4	T1	4.75K	1%	R					
Type	Description	Code	TCR			SEI Types		Pkg Qty	Code	Description	
RNF	Standard	1/8	T1	100ppm	E96, E24	RNF18, RNF14, RNMF14, RNMF12	5,000	R		Tape and Reel	
RNMF	Mini	1/4	T2	50ppm		RNF12, RNF1	2,500				
PRN	Panaset	1/2	T9	25ppm		RNF2	1,000				
PRNF	Pana - RoHS	1	TB	10ppm		RNF18, RNF14, RNMF14, RNMF12	5,000 (*)	T			Ammo
		2				RNF12	2,000				
					5%	E24	RNF1, RNF2	1,000			
							RNF18, RNF14, RNF12, RNF2, RNF1, RNMF14, RNMF12	1,000	A	Bulk	

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