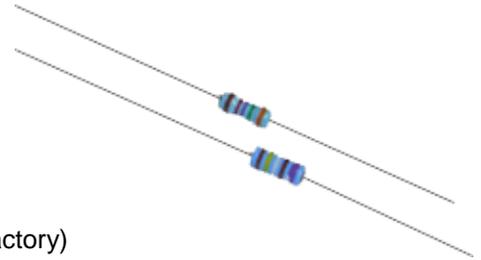
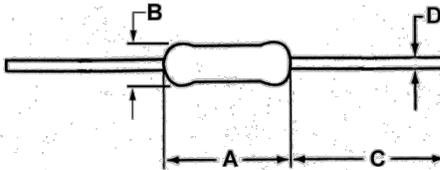


- Features:
- Precision metal film
 - Superior electrical, TCR performances
 - Flame-retardant coatings are standard
 - Panasert available (selected sizes: contact factory)
 - RNMF (mini) an ideal choice where size constraints apply
 - RNF 5% replaces MP series
 - RoHS compliant / lead-free
 - Lower 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%
RNF18	RN 50	0.125W	200V	400V	±10 ppm/°C ±25 ppm/°C ±50 ppm/°C ±100 ppm/°C	100 - 100K	100 - 100K	100 - 100K	100 - 100K	100 - 100K	-
									30.1 - 499K	49.9 - 499K	
RNF14	RN 55	0.25W	250V	500V	±10 ppm/°C ±25 ppm/°C ±50 ppm/°C ±100 ppm/°C	100 - 100K	100 - 100K	-		10 - 1M 1 - 5.11M 1 - 10M	-
								51.1 - 100K	1 - 2.2M		
RNF12	RN 60	0.5W	350V	700V	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C	100 - 100K	49.9 - 499K		10 - 1M 1 - 4.99M 1 - 10M	-	-
							10 - 1M	1 - 10M			
RNF1	RN 65	1W	350V	700V	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C	-	-	10 - 1M	10 - 470K 1 - 1M	-	10 - 470K 1 - 1M
RNF2	-	2W	350V	800V	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C	-	-	-	10 - 1M	-	10 - 1M
RNMF14	-	0.25W	200V	400V	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C	-	100 - 100K	30.1 - 499K	30.1 - 499K	-	-
								10 - 1M	1 - 1M 1 - 2.15M		
RNMF12	RL 07	0.5W	350V	600V	±25 ppm/°C ±50 ppm/°C ±100 ppm/°C	-	30.1 - 294K	49.9 - 1M		-	-
							30.1 - 1M	10 - 1M	1 - 1M 1 - 10M		

(1) Lesser of √PR or maximum working voltage

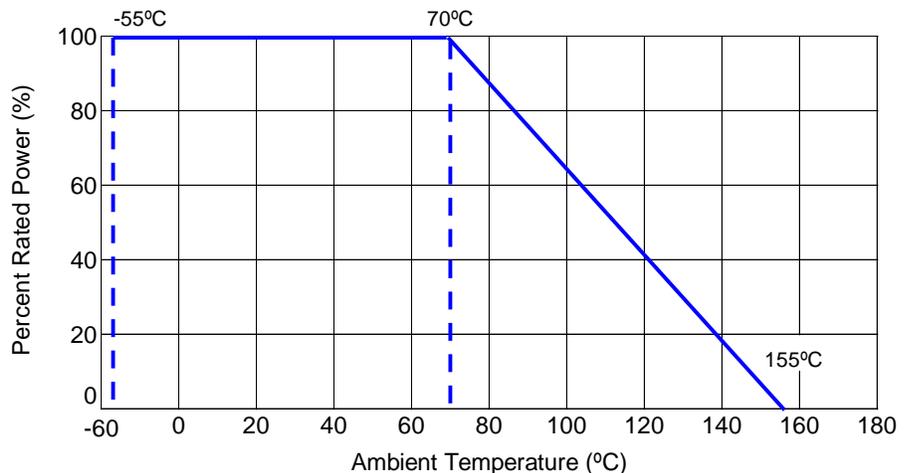


Mechanical Specifications					
Type / Code	A Body Length	B Body Diameter	C Lead Length (Bulk)	D Lead Diameter	Unit
RNF18	0.130 ± 0.012 3.30 ± 0.30	0.071 ± 0.012 1.80 ± 0.30	1.102 ± 0.118 28.00 ± 3.00	0.018 ± 0.003 0.45 ± 0.07	inches mm
RNF14	0.250 ± 0.026 6.35 ± 0.65	0.093 ± 0.010 2.35 ± 0.25	1.102 ±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

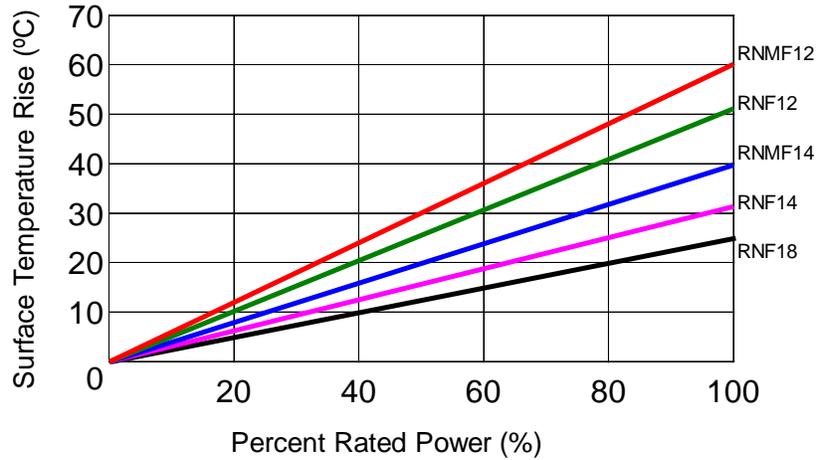
Performance Characteristics				
Test	Standard / Method	Typical Results	Test Limits	
Insulation Resistance	JIS C5201-1, IEC60115-1, 4.6	≥ 1000 MΩ	≥ 1000 MΩ	
Voltage Proof	JIS C5201-1, IEC60115-1, 4.7	<± 0.25%	≤ ± (0.5% + 0.05Ω)	No mechanical damage.
Short Time Overload	JIS C5201-1, IEC60115-1, 4.13	<± 0.1%	≤ ± (0.25% + 0.05Ω)	
Resistance to Solder Heat	JIS C5201-1, IEC60115-1, 4.18	<± 0.01%	≤ ± (0.3% + 0.05Ω)	
Rapid Change of Temperature	JIS C5201-1, IEC60115-1, 4.19	<± 0.05%	≤ ± (0.35% + 0.05Ω)	
Endurance at 70°C	JIS C5201-1, IEC60115-1, 4.25.1	<± 0.15%	≤ ± (1.0% + 0.05Ω)	
Robustness of Terminations	JIS C5201-1, IEC60115-1, 4.16	<± 0.10%	≤ ± (0.2% + 0.05Ω)	
Damp Heat (Steady state)	JIS C5201-1, IEC60115-1, 4.24	<± 0.10%	≤ ± (1.5% + 0.05Ω)	

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

Power Derating Curve:



Surface Temperature Rise:



How to Order

1 2 3 4 5 6 7 8 9 10 11 12
R N F 1 4 F T D 4 K 7 5

Product Series		Size	Power	Tolerance			Packaging			TCR		Resistance Value			
Code	Description			Code	Tol	Value	Code	Description	Size	Quantity	Code	ppm			
RNF	Standard	18	0.125W	A	0.05%	E96, E24	T	Tape and Reel	RNF18, RNF14	5,000	T	10	Four characters with the multiplier used as the decimal holder. 10 ohm = 10R0 10.2 Kohm = 10K2 1 Mohm = 1M00		
RNMF	Mini	14	0.25W	B	0.1%						RNMF14, RNMF12	2,500		E	25
PRNF	Panasert RoHS	12	0.5W	C	0.25%						RNF12, RNF1	1,000		C	50
		1	1W	D	0.5%			A	Ammo	RNF18, RNF14	5,000 (*)	D		100	
		2	2W	F	1%					RNMF14, RNMF12		2,000			
				G	2%		E24			RNF12	1,000				
				J	5%		B	Bulk	RNF1, RNF2	1,000					
									RNF18, RNF14, RNF12, RNF2	1,000					
									RNMF12, RNMF14						

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