Stackpole Electronics, Inc.

General Purpose Metal Film Resistor

Resistive Product Solutions

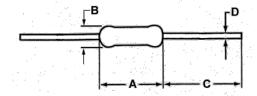
Features: •

- 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 - 100K	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
	RN 65	1W	350V	700V	±25 ppm/°C	-	-	-	-	-	-	-
RNF1					±50 ppm/°C	-	-	-	10 - 1M	10 - 470K	-	10 - 470K
					±100 ppm/°C	-	-	-	10 - 1M	1 - 1M	-	1 - 1M
	-	2W	350V	800V	±25 ppm/°C	-	-	-	-	-	-	-
RNF2					±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
	RL 07	0.5W	350V	600V	±25 ppm/°C	-	30.1 - 294K	30.1 - 294K	49.9 - 1M	49.9 - 1M	-	-
RNMF12					±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

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⁽¹⁾ Lesser of √PR or maximum working voltage

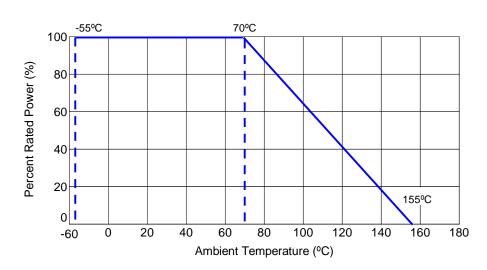


Mechanical Specifications							
Type / Code	A Body Length	B Body Diameter	C Lead Length (Bulk)	D Lead Diameter	Unit		
RNF18	0.130 ± 0.012	0.071 ± 0.012	1.102 ± 0.118	0.018 ± 0.003	inches		
	3.30 ± 0.30	1.80 ± 0.30	28.00 ± 3.00	0.45 ± 0.07	mm		
RNF14	0.250 ± 0.026	0.093 ± 0.010	1.102 ± 0.118	0.022 ± 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-5201-1 4.6	≥1000 MΩ				
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%				

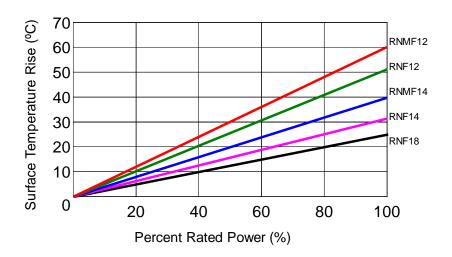
Operating Temperature Range: -55°C to +155°C

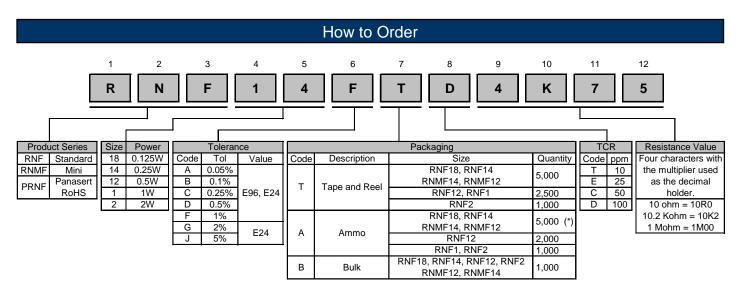
Power Derating Curve:



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Surface Temperature Rise:





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