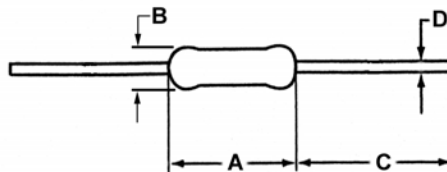


- Features:
- Coating meets UL 94V-0
  - Flameproof – meets overload test of UL #1412
  - Designed for constant current to provide overload protection
  - Consistent performance and reliability
  - Cut and formed product is available on select sizes, contact factory for details
  - RoHS compliant / lead-free



Electrical Specifications					
Type / Code	Power Rating (Watts) @ 70°C	Maximum Working Voltage (1)	Maximum Overload Voltage	Resistance Temperature Coefficient	Ohmic Range (Ω) and Tolerance
					5%
FRN16	0.166W	150V	200V	±350 ppm/°C	0.56 - 10K
FRN14	0.25W	200V	300V	±350 ppm/°C	0.22 - 10K
FRN12	0.5W	250V	400V	±350 ppm/°C	0.47 - 10K
FRN1	1W	300V	600V	±350 ppm/°C	0.47 - 10K
FRN2	2W	300V	600V	±350 ppm/°C	1 - 3K

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

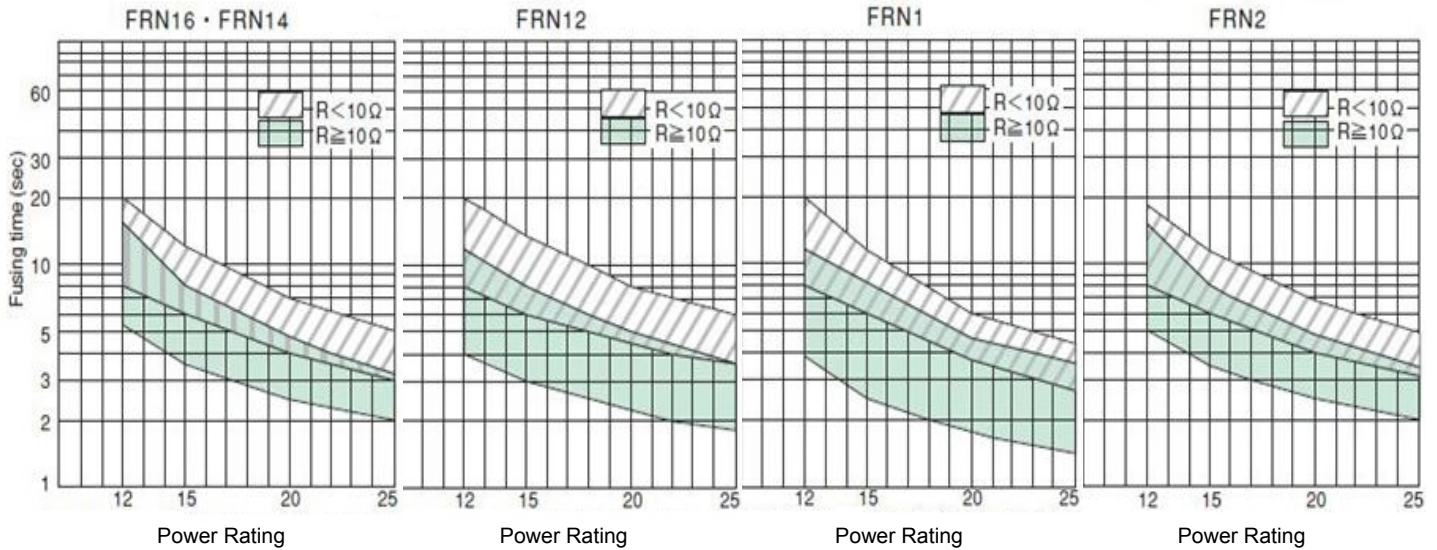


Mechanical Specifications					
Type / Code	A Body Length	B Body Diameter	C Lead Length (Bulk)	D Lead Diameter	Unit
FRN16	0.126 +0.008/-0	0.07 ± 0.006	1.1 ± 0.12	0.018 ± 0.002	inches
	3.2 +0.2/-0	1.85 ± 0.15	28.0 ± 3.0	0.45 ± 0.05	mm
FRN14	0.024 ± 0.02	0.09 ± 0.01	1.1 ± 0.12	0.022 ± 0.002	inches
	6.0 ± 0.5	2.3 ± 0.2	28.0 ± 3.0	0.55 ± 0.05	mm
FRN12	0.35 ± 0.04	0.12 ± 0.02	1.1 ± 0.12	0.028 ± 0.002	inches
	9.0 ± 1.0	3.0 ± 0.5	28.0 ± 3.0	0.7 ± 0.05	mm
FRN1	0.43 ± 0.04	0.16 ± 0.02	1.1 ± 0.12	0.031 ± 0.002	inches
	11.0 ± 1.0	4.0 ± 0.5	28.0 ± 3.0	0.8 ± 0.05	mm
FRN2	0.59 ± 0.04	0.22 ± 0.04	1.38 ± 0.12	0.031 ± 0.002	inches
	15.0 ± 1.0	5.5 ± 1.0	35.0 ± 3.0	0.8 ± 0.05	mm

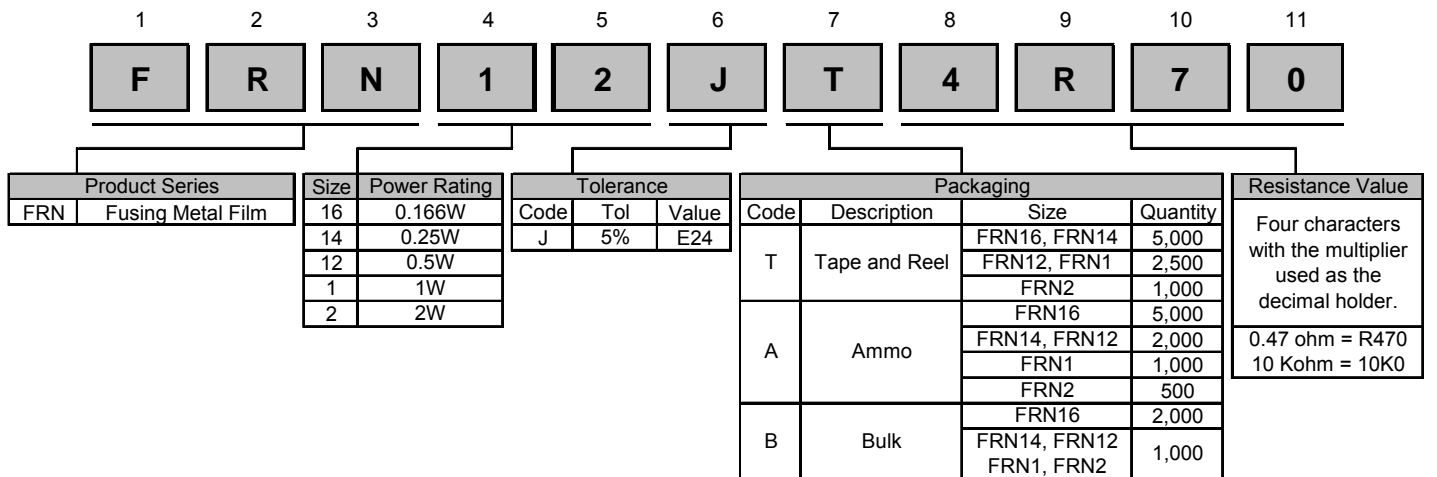
Performance Characteristics	
Test	Test Results
Moisture Resistance	±5%
Thermal Shock	±1%
Load Life @ 70°C - 1,000hrs	±5%
Resistance to Soldering Heat	±1%
Short Time Overload	±2%

Operating Temperature Range: -40°C to +155°C

**Fusing Curves**



**How to Order**



Legacy Part Number (before January 3, 2011):

SEI Type		Code		Nominal Resistance	Tolerance		Packaging			
FRN		1/2		4.7	5%		R			
Type	Description	Code	Wattage	Tolerance		Values	SEI Types	Pkg Qty	Description	Code
FRN	Fusing Metal Film	1/6	0.166W	5%		E24	FRN16, FRN14	5,000	tape and reel	R
		1/4	0.25W				FRN12, FRN1	2,500		
		1/2	0.5W				FRN2	1,000		
		1	1W				FRN16	5,000	ammo	T
		2	2W				FRN14, FRN12	2,000		
							FRN1	1,000		
							FRN2	500	bulk	A
							FRN16	2,000		
							FRN14, FRN12 FRN1, FRN2	1,000		