

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*	Maximum Overload Voltage	Resistance Temperature Coefficient	Ohmic Range and Tolerance
					5.0%
FRN 1/4	0.25W	200V	300V	±350 ppm/°C	0.22Ω – 10KΩ
FRN 1/2	0.50W	250V	400V	±350 ppm/°C	0.47Ω – 10KΩ
FRN 1	1.00W	300V	600V	±350 ppm/°C	0.47Ω – 10KΩ
FRN 2	2.00W	300V	600V	±350 ppm/°C	1.0Ω – 3KΩ

*Lesser of √PR or maximum working voltage.

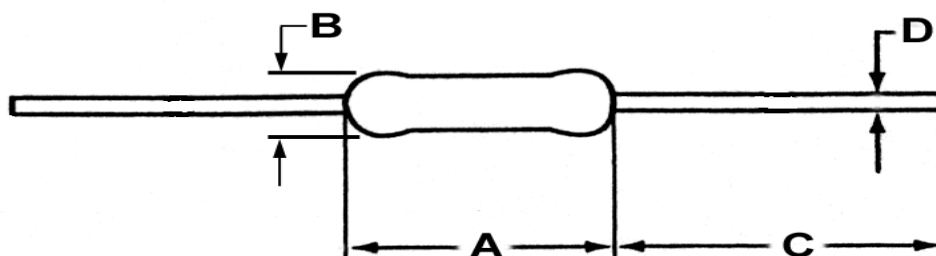
Fusing Characteristics Magnification of Power Rating

Type / Code	X25	X15	X12	Fusing Time
FRN 1/4	0.22Ω – 0.91Ω	1.0Ω – 4.7KΩ 2.4KΩ – 10KΩ	5.1Ω – 2.2KΩ	30 Sec. Maximum
FRN 1/2	–	0.47Ω – 2Ω 1.1KΩ – 10KΩ	2.2Ω – 1KΩ	
FRN 1	–	0.47Ω – 2Ω 1.1KΩ – 10KΩ	2.2Ω – 1KΩ	
FRN 2	–	1Ω – 3.6Ω 1.1KΩ – 3KΩ	3.9Ω – 1KΩ	

How to Order

FRN		1/2	4.7	5%	R
SEI Type		Code	Nominal Resistance	Tolerance	Packaging
SEI Type	Description	Code	Wattage	Tolerance	Values
FRN	Fusing Metal Film	1/4	0.25W	5.0%	E24
		1/2	0.50W		
		1	1.00W		
		2	2.00W		

SEI Types	Pkg Qty	Description	Code
FRN 1/4	5,000	Tape	R
FRN 1/2, FRN 1	2,500		
FRN 2	1,000		
All	1,000	Ammo	T
All	1,000	Bulk	A



Mechanical Specifications

Type / Code	A Body Length	B Body Diameter	C Lead Length (Bulk)	D Lead Diameter	Units
FRN 1/4	0.24 ± 0.01	0.09 ± 0.01	1.10 ± 0.08	0.022 ± 0.002	inches
	6.0 ± 0.2	2.3 ± 0.2	28.0 ± 2.0	0.55 ± 0.05	mm
FRN 1/2	0.35 ± 0.02	0.11 ± 0.02	1.10 ± 0.08	0.028 ± 0.002	inches
	9.0 ± 0.5	2.8 ± 0.5	28.0 ± 2.0	0.70 ± 0.05	mm
FRN 1	0.43 ± 0.02	0.16 ± 0.02	1.10 ± 0.08	0.028 ± 0.002	inches
	11.0 ± 0.5	4.0 ± 0.5	28.0 ± 2.0	0.70 ± 0.05	mm
FRN 2	0.59 ± 0.04	0.22 ± 0.02	1.38 ± 0.12	0.031 ± 0.002	inches
	15.0 ± 1.0	5.5 ± 0.5	35.0 ± 3.0	0.80 ± 0.05	mm

Performance Characteristics

Test	Test Results
Moisture Resistance	±5.0%
Thermal Shock	±1.0%
Load Life @ 70°C – 1,000hrs	±5.0%
Resistance to Soldering Heat	±1.0%
Short Time Overload	±2.0%

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