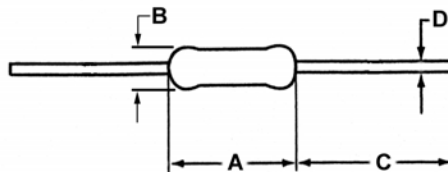


- Features:
- Coating meets UL 94V-0
 - Flameproof – meets overload test of UL #1412
 - Designed for constant current to provide overload protection
 - Consistent performance and reliability
 - Cut and formed product is available on select sizes, contact factory for details
 - RoHS compliant / lead-free



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

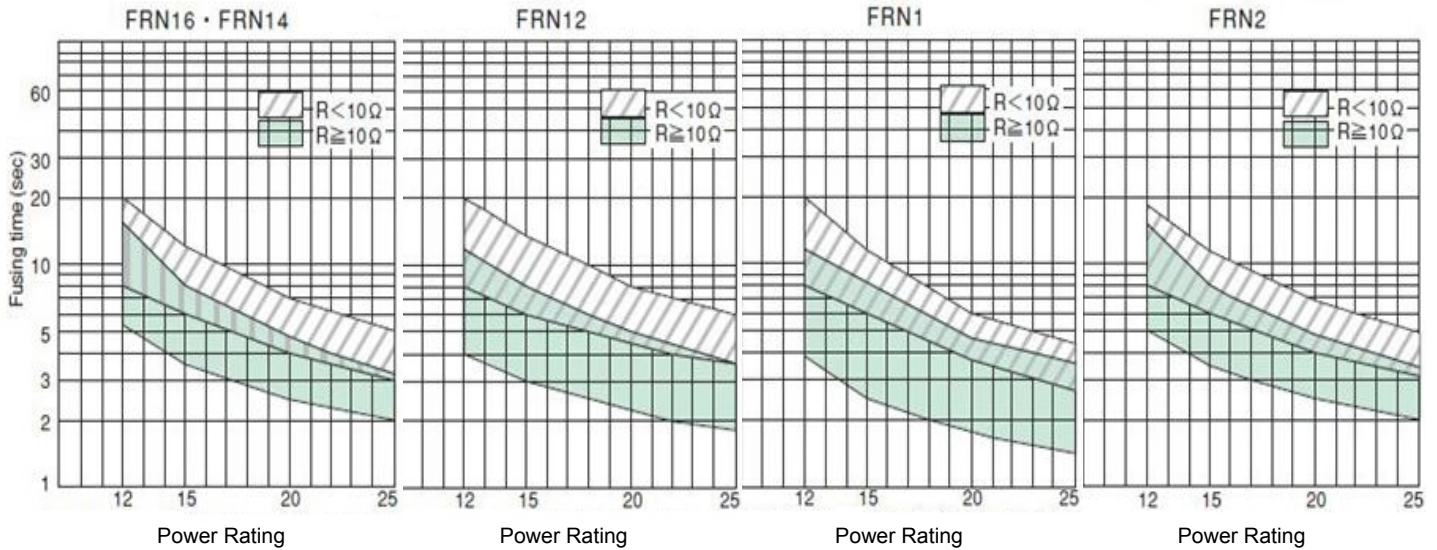


Mechanical Specifications					
Type / Code	A Body Length	B Body Diameter	C Lead Length (Bulk)	D Lead Diameter	Unit
FRN16	0.126 +0.008/-0	0.07 ± 0.006	1.1 ± 0.12	0.018 ± 0.002	inches
	3.2 +0.2/-0	1.85 ± 0.15	28.0 ± 3.0	0.45 ± 0.05	mm
FRN14	0.024 ± 0.02	0.09 ± 0.01	1.1 ± 0.12	0.022 ± 0.002	inches
	6.0 ± 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

1 2 3 4 5 6 7 8 9 10 11

F R N 1 2 J T 4 R 7 0

Product Series		Size	Power Rating	Tolerance		Packaging			Resistance Value	
FRN	Fusing Metal Film	16	0.166W	Code	Tol	Code	Description	Size	Quantity	Four characters with the multiplier used as the decimal holder. 0.47 ohm = R470 10 Kohm = 10K0
		14	0.25W	J	5%	T	tape and reel	FRN16, FRN14	5,000	
		12	0.5W			A	ammo	FRN12, FRN1	2,500	
		1	1W					FRN2	FRN2	1,000
		2	2W			B		bulk	FRN16	5,000
							FRN14, FRN12		FRN1	2,000
							FRN1		FRN2	1,000
								FRN2	500	
								FRN16	2,000	
								FRN14, FRN12	1,000	
								FRN1, FRN2	1,000	

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	1,000		
							FRN1, FRN2	1,000		