Metal Film Flame-Proof Resistors

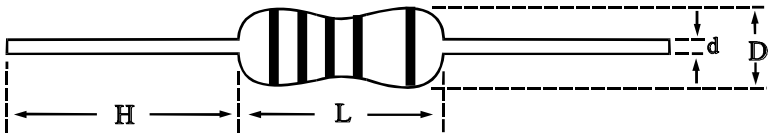
■Features

- Low Noise
- Low TCR from ±15～100PPM/℃
- High Precision from ±0.1%～1%
- Complete Flameproof Construction UL-1412 .
- Coating meets UL94V-0

■Applications

- Automotive
- Telecommunication
- Medical Equipment
- Consumer Product

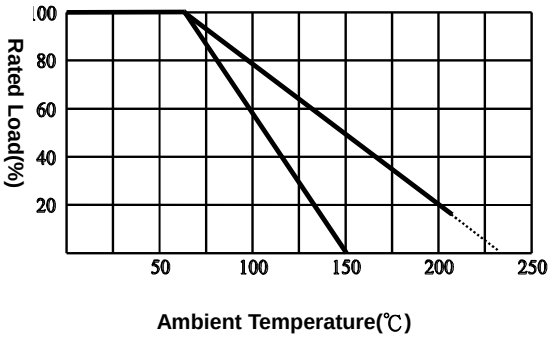
■Dimensions



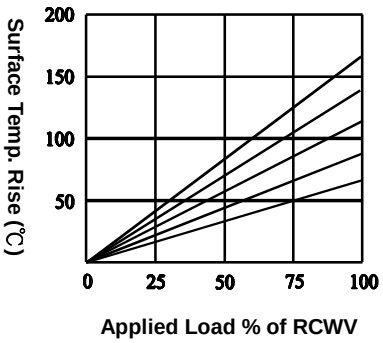
Unit: mm

Type	L	D	H	d
FMR0623	6.3±0.5	2.3±0.3	28±2.0	0.55±0.03
FMR0932	9.0±0.5	3.2±0.5	26±2.0	0.65±0.03
FMR1145	11.5±1.0	4.5±0.5	35±2.0	0.78±0.03
FMR1550	15.5±1.0	5.0±0.5	32±2.0	0.78±0.03

■Derating Curve



■Hot-spot Temperature



FMR1145 (H)

FMR1550 / FMR0932(H)

FMR1145 / FMR0932
FMR0623

Metal Film Flame-Proof Resistors

■Part Numbering

FMR	0318	B	T	N	W	1001	
Product Type	Dimensions (L×D)	Resistance Tolerance	Packaging Code	TCR (PPM/˚C)	Power Rating	Resistance	Special
	0623: 6.3x2.3 0932: 9.0x3.2 1145: 11.5x4.5 1550: 15.5x5.0	B: ±0.1% C: ±0.25% D: ±0.5% F: ±1%	A: Ammo B: Bulk T: Taping Reel	N: ±15 C: ±25 D: ±50 E: ±100	R: 3W S: 2W T: 1W U: 1/2W V: 1/4W	R100: 0.1Ω 0010: 1Ω 1000: 100Ω 2201: 2200Ω 1001: 1KΩ 1004: 1MΩ	: Standard MA: MA-type MB: MB-type MC: MC-type FA: FA-type FB: FB-type FC: FC-type FD: FD-type

■Standard Electrical Specifications

Item / Type	Power Rating at 70℃	Operating Temp. Range	Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Resistance Range ≦0.25% E192	Resistance Range ≧0.50% E96	TCR (±PPM/℃)
0623	1/4W	-55 ~ +155℃	250V	500V	400V	100Ω ~ 100KΩ	10Ω ~ 1MΩ	±15 ±25 ±50 ±100
0932	1/2W		350V	700V	500V			
1145	1W		450V	1000V	750V			
1550	2W		500V	1000V	750V			

■High Power Rating Electrical Specifications

Item / Type	Power Rating at 70℃	Operating Temp. Range	Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Resistance Range ≦0.25% E192	Resistance Range ≧0.50% E96	TCR (±PPM/℃)
0623	1/2W	-55 ~ +155℃	300V	500V	400V	100Ω ~ 100KΩ	10Ω ~ 1MΩ	±15 ±25 ±50 ±100
0932	1W		400V	800V	600V			
1145	2W		500V	1000V	750V			
1550	3W		500V	1000V	750V			

Operating Voltage=√(P*R) or Max. operating voltage listed above, whichever is lower.
Overload Voltage=2.5*√(P*R) or Max. overload voltage listed above, whichever is lower.

■Resistor body color :
Standard Power Rating : Grey ; High Power Rating : Green

■Environmental Characteristics

Item	Specification	Test Method
Short Time Overload	±(0.25%+0.05Ω)	**JIS-C-5202-5.5** RCWV*2.5 or Max. overload voltage whichever is lower for 5 seconds
Temperature Coefficient	By Type	Resistance value at room temperature and room temperature+100℃
Dielectric Withstanding Voltage	By Type	**JIS-C-5202-5.7** In V-Block for 60 seconds
Pulse Overload	±(0.75%+0.05Ω)	**JIS -C5202 5.8** 4 times RCWV for10000cycles (1sec.on，25secs.off)
Insulation Resistance	＞1000MΩ	**JIS -C5202 5.6** In V-Block for 60 seconds
Load Life	±(1.5%+0.05Ω)	**JIS -C5202 7.10** RCWV，70℃，1.5 hours ON，0.5 hours OFF, total 1000 hours
Humidity（Steady State）	±(1.5%+0.05Ω)	**JIS -C5202 7.9** 40±2℃，90~95%RH,RCWV 1.5 hours ON,0.5 hours OFF, total 1000 hours
Solderability	95% Min. Coverage	**JIS -C5202 6.5** 235℃±5℃, 2±0.5 (sec)
Resistance To Solvent	No deterioration of coatings and markings	**JIS -C5202 6.9** Trichroethane for 1 min. with ultrasonic
Terminal Strength	Tensile:≧2.5kg	Direct Load for 10 sec. In the direction off the terminal leads.
Shelf Life	△R= ±0.1%	12 months at room temperature 25±3℃,80%RH Max

RCWV(Rated continuous working voltage)= $\sqrt{}$(P*R) or Max. Operating voltage whichever is lower

■Storage Temperature: 25±3°C; Humidity < 80%RH