FLAMEPROOF FUSIBLE RESISTORS

Introduction

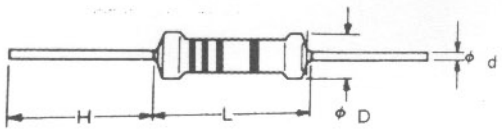
FMF, FML Series are low cost type resistor provides circuit protection for overload or component failure. The resistor will be opened quickly under continuous load, it prevents circuit board from damage and fire hazards.

Features

1. Suiable to apply in transistor protection circuit.
2. Small in sizes with low cost.
3. Noncombustible insulating coat, solvent proof and ex - cellent application in high temperature.
4. Good TCR ± 200PPM/°C
5. Uniform in fusing time.

FUSIBLE METAL FILM TYPE FMF FML SERIES

Dimensions

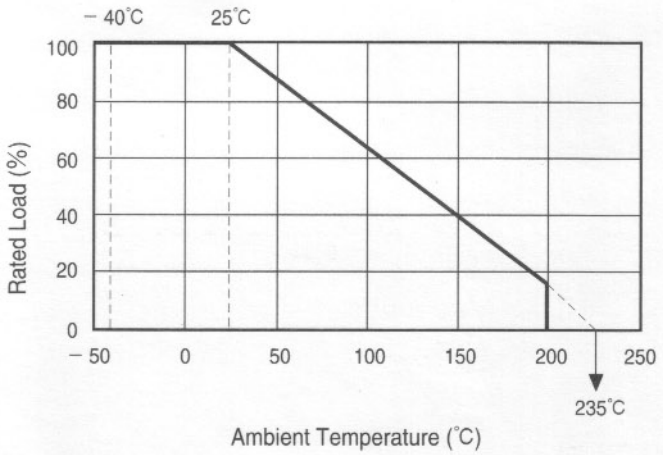


General Specification

Style		Dimensions				Resistance Range	Max Working Voltage	Dielectric Withstanding Voltage
FML	FMF	L	D	d	H (MIN)			
1/4W	1/2W	6.5 ± 0.5	2.3 ± 0.2	0.05 ± 0.05	25	1 Ω ~10K Ω	250V	300V
–	3/4W	9 ± 0.5	3.0 ± 0.2	0.60 ± 0.05	25	1 Ω ~10K Ω	300V	350V
1/2W	1W	9 ± 0.5	4.0 ± 0.2	0.60 ± 0.05	25	1 Ω ~10K Ω	300V	500V
1W	2W	11 ± 0.5	4.5 ± 0.2	0.75 ± 0.05	25	1 Ω ~10K Ω	350V	500V
2W	3W	15 ± 0.5	5.5 ± 0.2	0.75 ± 0.05	25	1 Ω ~10K Ω	500V	500V

Note: 1. Max overload voltage is 2 times of Max working voltage.
2. 0.1-0.9 Ω available upon nequest.
3. MF form available, pls to pcge 27.

Derating Curve



Fusing Characteristics:

Resistance Range	Fusing Power	
	FML	FMF
0.22 Ω ~ 1 Ω	32 × Rated power	16 × Rated power
1.1 Ω ~ 2 Ω	25 × Rated power	16 × Rated power
2.1 Ω ~ 10 Ω	16 × Rated power	16 × Rated power
12 Ω ~ 10K Ω	12 × Rated power	16 × Rated power
Fusing Time: within 60 sec		

Note: 1. Same fusing chart for FML, FMF, FKN and FSQ series.
2. Special fusing time accoring to customers' spec is also available.

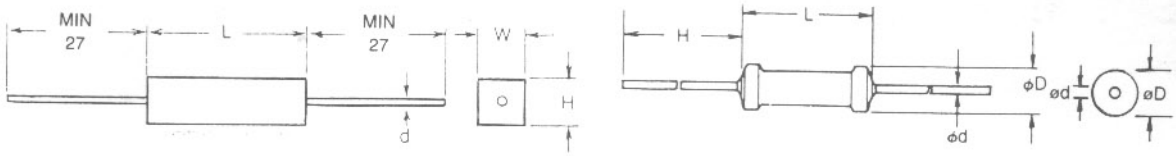
CHARACTERISTIC

Characteristics	Condition	Spec.
Operating Temp.	−40°C～240°C	
Resistance Temp. Coeff.	−30°C～150°C	±200 PPM/°C
Short Time Overload	2 times of rated VOLTAGE for 5 sec.	±2%
Insulation Resistance	500V megger	1,000MΩ
Temp. Cycle	−30°C～85°C for 5 cycles	±1%
Load Life	25°C on-off cycle 1,000 hrs.	±5%
Moisture-Proof Load Life	40°C 95% RH on-off cycle 1,000 hrs.	±5%
Solder Pot	270°C for 3 sec.	±1%
Incombustibility	16 times of rated wattage for 5 min.	not flamed

* Total resistance change : (△R% + 0.05Ω)

FUSIBLE WIRE WOUND TYPE FKN, FSQ SERIES

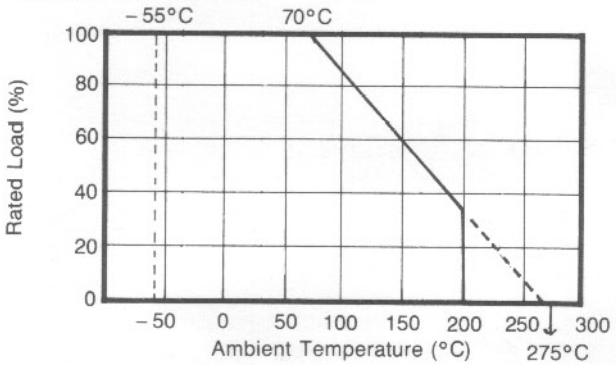
DIMENSIONS



GENERAL SPECIFICATION

STYLE	Power Rating	Dimension (MM)						Resistance Range	Dielectric Withstanding Voltage
		L ± 1.5	D ± 1	h ± 0.5	W ± 0.5	H(MIN)	d ± 0.05		
FKN	1W	9	4.5			25	0.65	0.1Ω –10Ω	500V
	2W	11	5.0			27	0.75	0.1Ω –30Ω	500V
	3W	13	5.5			27	0.75	0.1Ω –50Ω	500V
	5W	19	6.5			27	0.75	0.3Ω –100Ω	500V
FSQ	2W	18		7	7	27	0.65	0.1Ω –22Ω	1000V
	3W	22		8	8	27	0.75	0.1Ω –50Ω	1000V
	5W	22		9	10	27	0.75	0.2Ω –50Ω	1000V
	7W	35		9	10	27	0.75	0.3Ω –100Ω	1000V
	10W	48		9	10	27	0.75	0.3Ω –150Ω	1000V

DERATING CURVE



CHARACTERISTICS:

Test Items	Condition	Spec.
Operating Temp.	−55°C ~ 275°C	
Resistance Temp. Coeff.	−30°C ~ 150°C	±300 PPM/°C
Short Time Overload	2.5 times of rated voltage for 5 sec.	±2%
Insulation Resistance	500V megger	1,000 MΩ
Temp. Cycle	−30°C ~ 85°C for 5 cycles	±1%
Load Life	70°C on-off cycle 1,000 hrs.	±5%
Moisture-Proof Load Life	40°C 95% RH on-off cycle 1,000 hrs.	±5%
Solder Pot	270°C for 3 sec.	±1%
Incombustibility	16 times of rated wattage for 5 min.	not flamed

* Total resistance: (△R% + 0.05Ω)