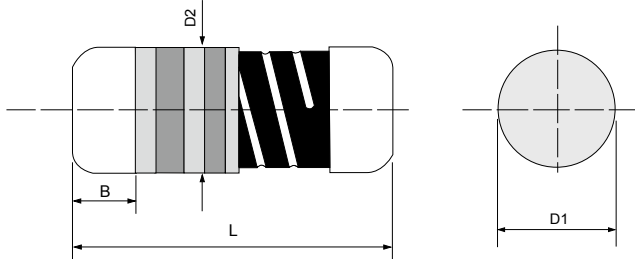


FM Fusible MELF Resistor

Quality • Reliability
Cost-Down via Innovation

FM



Specifications Per

- IEC 60115-1
- EN140401-803

Features

- SMD enabled structure
- Excellent in heat dissipation than chip resistor
- Stronger mechanical structure to endure vibration and thermal shock
- Excellent solderability termination
- RoHS and REACH compliant

DIMENSIONS

Type	Body Length (L, mm)	Cap Diameter (D1, mm)	Body Diameter (D2, mm)	Soldering Spot (B, mm)	Net Weight Per 1000 pcs
FM26	5.90 ± 0.2	2.20 ± 0.1	D1+0.02/ -0.2	1.0 Min.	66 grams
FM53	5.90 ± 0.2	2.20 ± 0.1	D1+0.02/ -0.2	1.0 Min.	66 grams

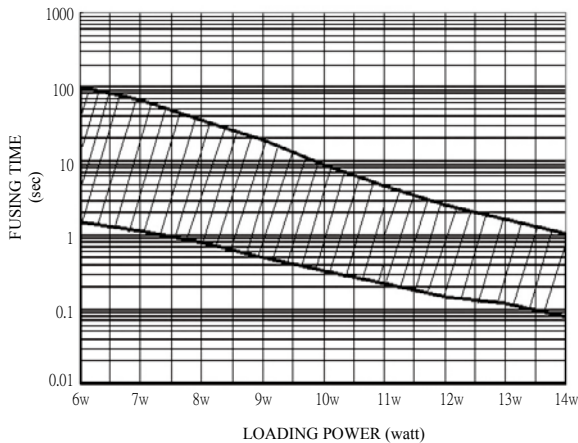
GENERAL SPECIFICATIONS

Type	Power Rating (at 70°C)	Max. Working Voltage	Minimum Resistance	Maximum Resistance	Resistance Tolerance	Available Resistance Value
FM26	1/3W	250V	2.2Ω	10KΩ	±5%	E-24
FM53	1/2W	300V	2.2Ω	10KΩ	±5%	E-24

Special sizes, values, and specifications not listed available on special order.

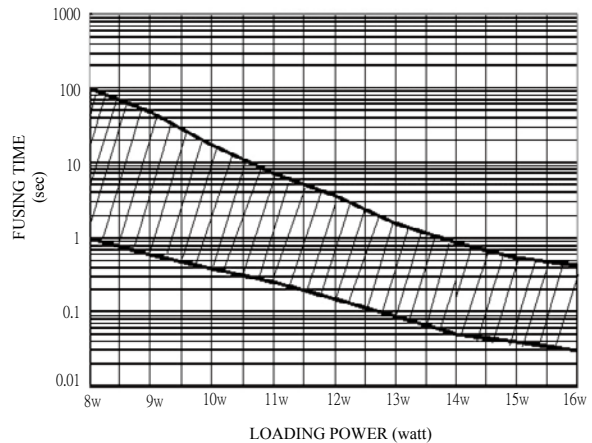
FM26

FUSING CHARACTERISTICS
USING CONSTANT VOLTAGE



FM53

FUSING CHARACTERISTICS
USING CONSTANT VOLTAGE



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■ PART NUMBER

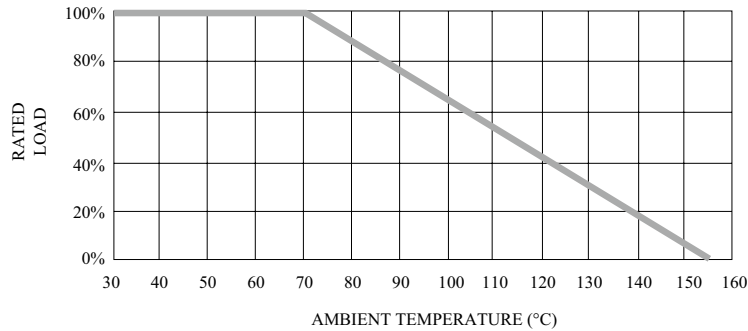
Example: FM53J10K0TKZTR2K0

FM53	J	10K0	TKZ	TR2K0
Type	Tolerance	Resistance	TCR	Packaging
	J (5%)	10KΩ 4-character code containing - 3 significant digits 1 letter multiplier <u>OHM MULTIPLIER</u> R = 1 K = 10 ³ M = 10 ⁶ G = 10 ⁹	3-character code TKZ = Default Product Temperature Coefficient. Information of typical product temperature coefficient can be found in the Technical Summary section of the datasheet.*	5-character code TR = Tape Reel (pieces per reel) <u>FM26/FM53</u> 2K0 = 2,000 6K0 = 6,000** 10K = 10,000**

* For the availabilities of non-default temperature coefficient, please check with us. Reference for TCR letter codes can be found in section (4) of Part Number Construction in the Appendices.

** upon request

■ POWER DERATING CURVE



■ TECHNICAL SUMMARY

Characteristics	Limits	
Dielectric Withstanding Voltage, VAC or DC	FM26 FM53	300
Temperature Coefficient, PPM / °C*	FM26 FM53	Typically ±200
Operating Temperature Range, °C	-55 ~ +155	
Insulation Resistance, MΩ	>10 ⁴	
Failure Rate in Time, pcs / 10 ⁹ device hours	<1	

* Not applicable to all resistance values. Please check with us regarding the PPM of specific resistance value(s).

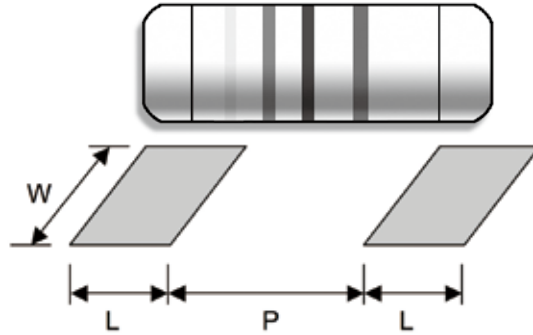
■ PERFORMANCE SPECIFICATIONS

Characteristics	Test Conditions	Limits
Short Time Overload	IEC 60115-1 4.13 2 seconds 2.5x rated voltage (not over max. overload voltage)	±5%
Load Life In Humidity	IEC 60115-1 4.24 56 days rated load (not over max. working voltage) at (40±2)°C and (93±3)% relative humidity	±5%
Load Life	IEC 60115-1 4.25.1 Rated load (not over max. working voltage) 1,000 hours with 1.5 hours ON, 0.5 hours OFF, at (70±2)°C	±5%
Resistance To Soldering Heat	IEC 60115-1 4.18.2 Dip the resistor into a solder bath measured of (260±5)°C and hold it for a 10±1 seconds	±1%
Solderability	IEC 60115-1 4.17.2 Solder area covered after (235±3)°C/(2±0.2) seconds with flux applied	95% min.coverage
Vibration	IEC 60115-1 4.22 Six hours in each parallel and axial direction with a simple harmonic motion having an amplitude of 0.75mm and 10 to 500 Hz.	±0.5%
Thermal Endurance	IEC 60115-1 4.25.3 1000 hours at 155°C without load	±1%
Thermal Shock	IEC 60115-1 4.19 -55°C 30minutes, +155°C 30minutes, 5 cycles	±1%

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■ SUGGESTED PAD LAYOUT



Type	Soldering Mode	Pad Length (L, mm, Min.)	Pad Spacing (P, mm)	Pad Width (W, mm, Min.)
FM26	Reflow	2.0	3.0 ± 0.1	3.0
	Wave	2.5	3.0 ± 0.1	3.0
FM53	Reflow	2.0	3.0 ± 0.1	3.0
	Wave	2.5	3.0 ± 0.1	3.0

For better heat dissipation / lower heat resistance, increase W & L.

■ COVER TAPE PEELING SPECIFICATION

Recommended peeling force: 50±5gf

