

Specifications Per

- IEC 60115-1

Features

- Flameproof multi-layer coating equivalent to UL 94 V-0
- Flameproof feature equivalent to overload test UL 1412
- Color code per MIL & EIA standards
- Special tin-plated electrolytic copper lead wire
- Products meet RoHS requirements and do not contain substances of very high concern identified by European Chemicals Agency

■ DIMENSIONS

Type	Body Length (L, mm)	Body Diameter (D, mm)	Lead Wire Length (H, mm)	Lead Wire Diameter (d, mm)	Net Weight Per 1000Pcs
FGE25	6.5 ± 0.5	2.4 ± 0.2	26 ± 3.0	0.55 ± 0.03	220 grams
FGE26	6.5 ± 0.5	2.4 ± 0.2	26 ± 3.0	0.55 ± 0.03	220 grams
FGE53	6.5 ± 0.5	2.4 ± 0.2	26 ± 3.0	0.55 ± 0.03	220 grams

■ GENERAL SPECIFICATIONS

Type	Power Rating (at 70°C)	Maximum Working Voltage	Minimum Resistance	Maximum Resistance	Resistance Tolerance	Available Resistance Values
FGE25	1/4W	250V	2.2Ω	15KΩ	±5%	E-24
FGE26	1/3W	250V	2.2Ω	15KΩ	±5%	E-24
FGE53	1/2W	350V	2.2Ω	10KΩ	±5%	E-24

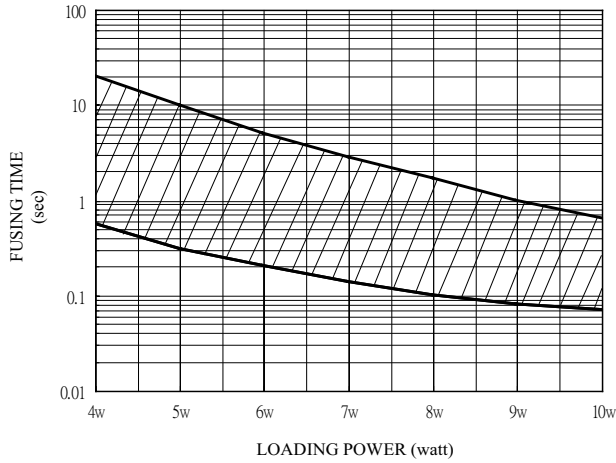
Other resistance values and higher wattages available on request.

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Cost-Down via Innovation

FGE

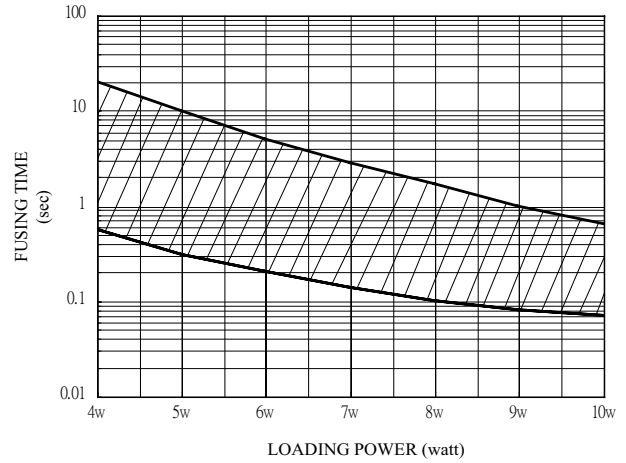
FGE25

FUSING CHARAC TERISTICS
USING CONST ANT VOLTAGE



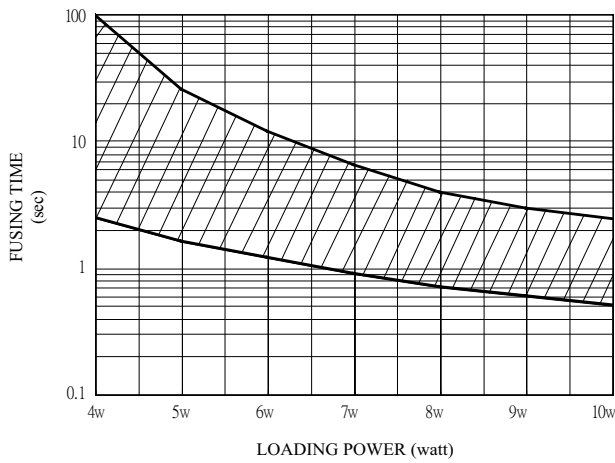
FGE26

FUSING CHARAC TERISTICS
USING CONST ANT VOLTAGE



FGE53

FUSING CHARAC TERISTICS
USING CONST ANT VOLTAGE



■ PART NUMBER

Example: FGE53J10K0TKZTB5K0

FGE53	J	10K0	TKZ	TB5K0
Type	Tolerance	Resistance	TCR	Packaging
	J (5%)	10KΩ 4-character code containing - 3 significant digits 1 letter multiplier OHM MULTIPLIER 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 TB = Tape Box (pieces per box) <u>FGE25/26/53</u> 5K0 = 5,000

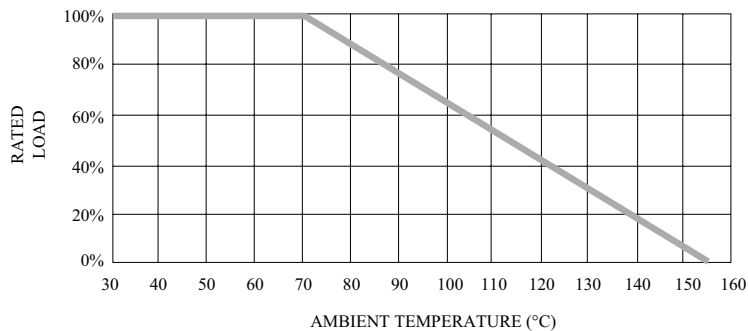
* For the availabilities of non-default temperature coefficient, please check with us. Reference for TCR letter codes can be found in section (4) of Part Number Construction in the Appendices.

■ TECHNICAL SUMMARY

Characteristics	Limits
Dielectric Withstanding Voltage, VAC or DC	500
Temperature Coefficient, PPM / °C*	±200
Operating Temperature Range, °C	-55 ~ +155
Insulation Resistance, MΩ	10 ⁴

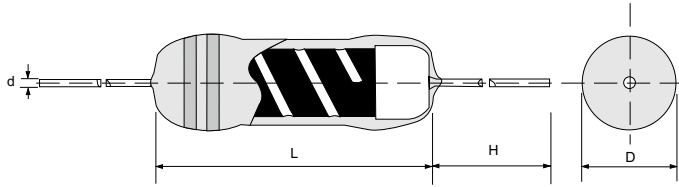
* Not applicable to all resistance values. Please check with us regarding the PPM of specific resistance value(s).

■ POWER DERATING CURVE



■ PERFORMANCE SPECIFICATIONS

Characteristics	Test Conditions	Limits
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 Leads immersed till 3mm from the body in (260±5)°C solder for 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 1.52mm and 10 to 2,000 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%



Specifications Per

• IEC 60115-1, IEC 60115-4

Features

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- Flameproof feature equivalent to overload test UL 1412
- Color code per MIL & EIA standards
- Special tin-plated electrolytic copper lead wire
- Products meet RoHS requirements and do not contain substances of very high concern identified by European Chemicals Agency

DIMENSIONS

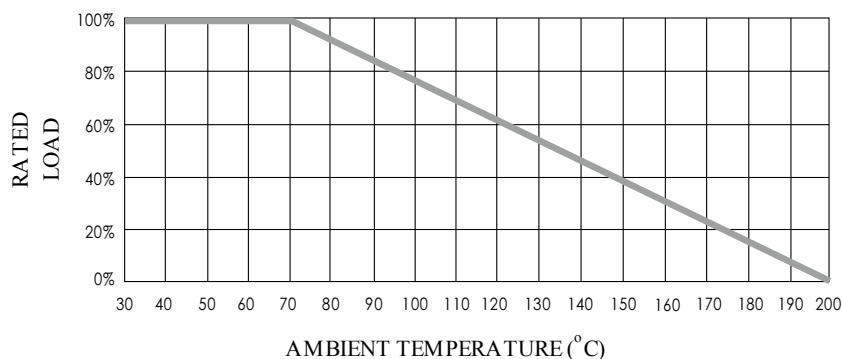
Type	Body Length (L, mm)	Body Diameter (D, mm)	Lead Wire Length (H, mm)	Lead Wire Diameter (d, mm)	Net Weight Per 1000Pcs
FGE50	9.00 ± 1.0	3.2 ± 0.2	28 ± 3.0	0.6 ± 0.03	340 Grams
FGE101	9.00 ± 1.0	3.2 ± 0.2	28 ± 3.0	0.6 ± 0.03	340 Grams
FGE100	11.0 ± 1.0	4.0 ± 0.5	28 ± 3.0	0.7 ± 0.03	500 grams
FGE201	11.0 ± 1.0	4.0 ± 0.5	28 ± 3.0	0.8 ± 0.03	510 grams
FGE200	13.5 ± 1.0	5.0 ± 0.5	30 ± 3.0	0.8 ± 0.03	1050 grams
FGE301	13.5 ± 1.0	5.0 ± 0.5	30 ± 3.0	0.8 ± 0.03	1050 grams

GENERAL SPECIFICATIONS

Type	Power Rating (at 70°C)	Maximum Working Voltage	Maximum Overload Voltage	Minimum Resistance	Maximum Resistance	Resistance Tolerance	Available Resistance Values
FGE50	1/2W	300V	600V	2.2Ω	10KΩ	±5%	E-24
FGE101	1W	300V	600V	2.2Ω	10KΩ	±5%	E-24
FGE100	1W	350V	600V	2.2Ω	10KΩ	±5%	E-24
FGE201	2W	350V	600V	2.2Ω	10KΩ	±5%	E-24
FGE200	2W	350V	600V	2.2Ω	10KΩ	±5%	E-24
FGE301	3W	350V	700V	2.2Ω	10KΩ	±5%	E-24

* Please contact us for 3W type (FGE301), resistance values, sizes, or specifications not listed.

POWER DERATING CURVE



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■ PART NUMBER

Example: FGE101J10K0TKZTB2K0

FGE101	J	10K0	TKZ	TB2K0
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 TB = Tape Box (pieces per box) <u>FGE50/101</u> 2K0 = 2,000 <u>FGE100/201/200</u> 1K0 = 1,000 <u>FGE301</u> 500 = 500

* 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.

■ TECHNICAL SUMMARY

Characteristics	Limits	
Dielectric Withstanding Voltage, V AC or DC	FGE50 FGE101 FGE100 FGE200 / 201 / 301	300 350 500 700
Temperature Coefficient, PPM/°C*	FGE50 / 101 / 100 / 201	±200, ±400
	FGE200	±200
	FGE301	±400
Operating Temperature Range, °C	-55 ~ +200	
Insulation Resistance, MΩ	10 ⁴	
Fusing Condition, W	Interrupts in max. 60 seconds at below overload FGE50: 8 FGE101 / FGE100 / 201: 16 FGE200: 20 FGE301: 24	

* 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 Leads immersed till 3mm from the body in (260±5)°C solder for 10±1 seconds	±1%
Solderability	IEC 60115-1 4.17.2 Solder area covered after (230±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 1.52mm and 10 to 2,000 Hz.	±0.5%
Thermal Endurance	IEC 60115-1 4.25.3 1000 hours at 200°C without load	±1%
Thermal Shock	IEC 60115-1 4.19 -55°C 30minutes, +155°C 30minutes, 5 cycles	±2%