Tel : 82-32-817-4325
Fax : 82-32-817-4329

Resistors And
Resistive Applications

SMG Series

METAL GLAZE HIGH VOLTAGE CHIP RESISTORS, ANTI-SULFURATION

- Flameproof UL94V0 molded package, resistance to sulfuration, heat and humidity.
- Special design for automatic surface mounting.
- Metal-glaze elements provide high stable performance against environmental conditions and overload.
- Excellent mechanical strength & electrical stability.
- Reducing assembly costs.

■ GENERAL SPECIFICATIONS

Model	Rating Power	Max. Permissible Voltage		Resistance Range
		DC	RMS	
SMG 1WL	1W	1600V	1150V	47k – 33MΩ
SMG 2WL	2W	3500V	2500V	47k – 33MΩ
SMG 3WL	3W	5000V	3500V	47k – 33MΩ

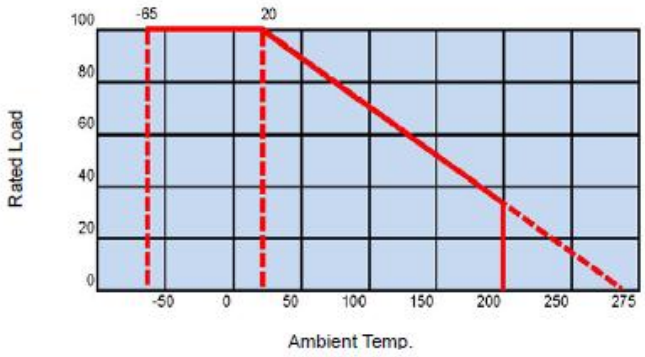
* Note : Too low or too high ohmic values can be supplied only case by case.
Rated Continuous Working Voltage (RCWV) shall be determined from RCWV=√(Rated Power x Resistance Value) or Max. Permissible Voltage listed above, whichever less.

■ CHARACTERISTICS

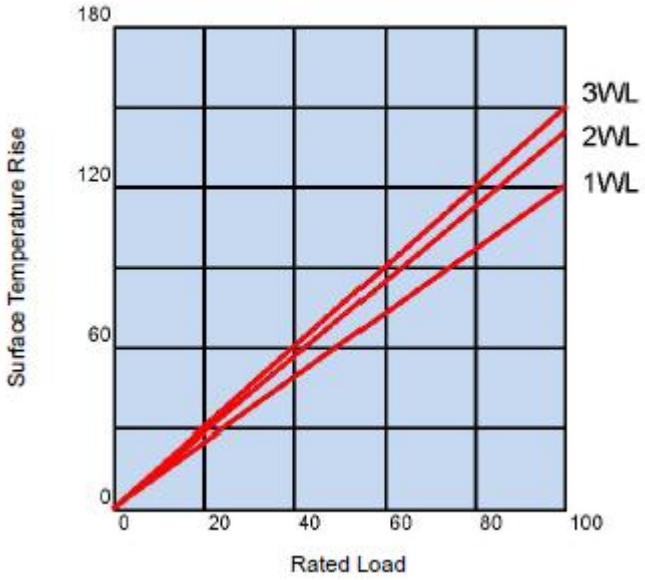
Resistance Tolerance		±1% [f] or ±5% [J]
Resistance Temp. Coeff.	-65°C ~ +200°C	±200 ppm/°C
Power Rating Load	Surface Temp. Max. 275°C △R/R ≤ ±1%	Rated voltage for 30minutes
Short Time Overload	±1%	2.5 times of rated voltage for 5sec.
Dielectric Withstanding Voltage	No evidence or mechanical damage or insulation breakdown	AC 1000V for 1min.
Insulation Resistance	10,000 MΩ	DC 500V megger
Pulse Loading Capability	△R/R ≤ ±2%	IEC 60065 14.1
Solder-ability	Minimum 95% coverage	235°C±5°C for 2seconds
Resistance to Soldering Heat	No evidence of mechanical damage	270°C±5°C for 10±1 seconds
Temp. Cycle	△R/R ≤ ±0.5%	-65°C(30mins) → Room Temp. (3mins) → +275°C(30mins) → Room Temp. (3mins) / (5 cycles)
Load Life	△R/R ≤ ±3%	Rated power load 90minutes ON 30minutes OFF 70°C 1000hours
Moisture-proof Load Life	△R/R ≤ ±3%	Rated power load 90minutes ON 30minutes OFF 40°C 95%RH 1000hours

■ DERATING CURVE

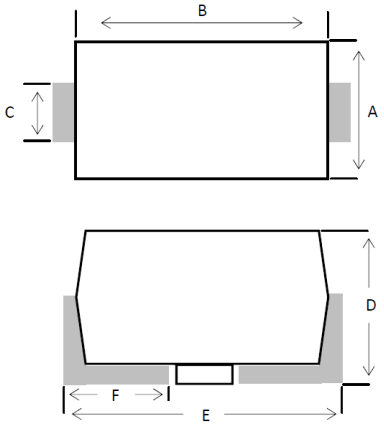
For resistors operated in ambient temperatures above 20°C power rating must be derated in accordance with the curve below.



■ SULFACE TEMPERATURE RISE



■ DIMENSIONS [mm]



Model	A±0.3	B±0.3	C±0.3	D±0.3	E max.	F±0.3
SMG 1WL	4.0	6.7	1.4	3.55	7.9	1.5
SMG 2WL	5.5	10.5	1.7	5.0	12	2.3
SMG 3WL	7.3	13.5	1.7	6.8	17	2.5

■ ODERING PROCEDURE EXAMPLE

SMG 2WL → Model
SMG 1WL
SMG 2WL
SMG 3WL

1M → Resistance

J → Tolerance
F = ±1%
G = ±5%