



炬鹿科技有限公司
RiDEE TECH COMPANY LIMITED

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APPROVAL SHEET

Product Name : Surface Mount / Power Metal Film Resistor
Part No. : SMS Series
Description : Size 3910 / 4720 / 6727

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For more contact information, please refer to our website: www.rideetech.com

Surface Mount / Power Metal Film Resistor – SMS Series

■ Applications

- Power Suppliers
- Machine Tools
- Lighting Controls
- Motor Controls



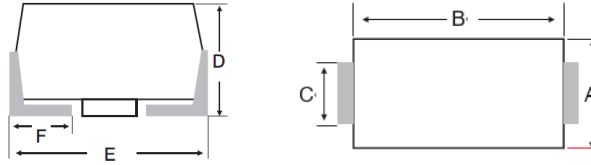
■ Features

- High Power rating up to 5W
- Flameproof molded encapsulation
- Excellent Stability
- Meet RoHS and Halogen Free

■ Part Number Explanation

SMS	3910	F	1000	T	S
Product	Size (Inch)	Tolerance	Resistance	Packaging	Functional
Surface Mount / Power Metal Film Resistor	3910 4720 6727	F : ±1.0% J : ±5.0%	100Ω=1000 1KΩ=1001 1MΩ=1004	T= Tape & Reel	S= Standard Type

Standard Electrical Specifications and Dimension

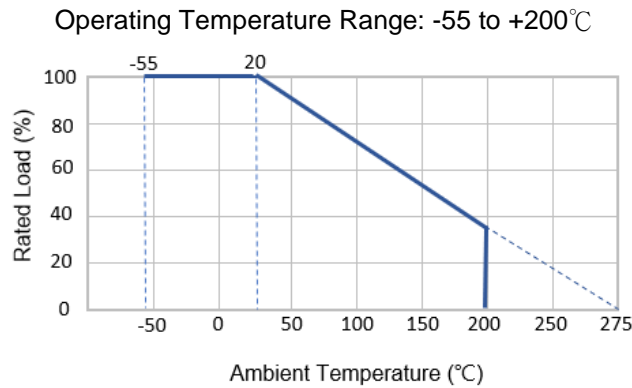


Item Type	Rated Wattage	Max Working Voltage	Resistance Range	Dimension (mm)					
				A	B	C	D	E	F
SMS 3910	2 W	300V	$10\Omega \leq R \leq 2M\Omega$	4.0 ± 0.3	6.7 ± 0.3	1.4 ± 0.3	3.55 ± 0.3	7.9 (max)	1.5 ± 0.3
SMS 4720	3 W	500V	$10\Omega \leq R \leq 2M\Omega$	5.5 ± 0.3	10.5 ± 0.3	1.7 ± 0.3	5.0 ± 0.3	12 (max)	2.3 ± 0.3
SMS 6727	5 W	500V	$10\Omega \leq R \leq 2M\Omega$	7.3 ± 0.3	13.5 ± 0.3	1.7 ± 0.3	6.8 ± 0.3	17 (max)	2.5 ± 0.3

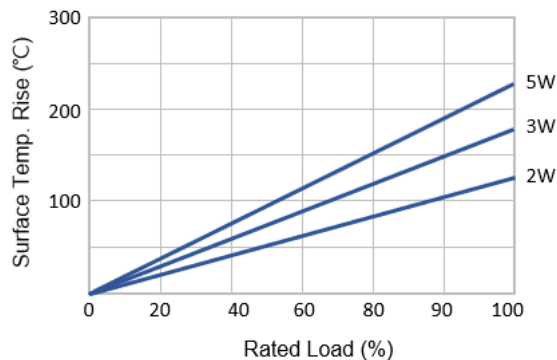
- TCR: ± 100 PPM/ $^{\circ}$ C
- Max. Overload Voltage is 2 times of Max. Working Voltage
- Too low or too high ohmic values can be supplied only case by case.
- Beyond the above specification also can meet the special requirements. For detail questions, please contact us freely.

Power Derating Curve

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



Surface Temperature Rise





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Reliability Test and Requirement

Test Item	Procedure	Requirements
Temperature Coefficient of Resistance (T.C.R)	At -55°C ~ +200°C, 25°C is the reference temperature	±100 PPM/°C
Short Time Overload	5 × Rated wattage for 30 minutes	± 0.5%
Resistance to Soldering Heat	Solder dipping 270±5°C for 10 sec. ±1sec.	ΔR ≤ ± 1% No mechanical damage
Rapid Change of Temperature	Repeat 5 cycles as follows -55°C (30 min.) + 25°C (3 min.) +200°C (30 min.) + 25°C (3 min.)	ΔR ≤ ± 1% No mechanical damage
Power Rating Load	Rated voltage for 30 minutes	ΔR ≤ ± 1% Surface temp. 275 Max.
Load Life	Permanent resistance change after 1000 hours (1.5 hours ON , 0.5 hour OFF) at RCWV or Max. Keep the resistor at 70°C ambient	ΔR ≤ ± 1%
Insulation Resistance	DC : 500V megger	1000MΩ
Dielectric Withstanding Voltage	AC 500V for 1 minutes	No mechanical damage
Solderability	After immersing flux, dip in the 235±5°C molten solder bath for 2 sec	Over 95% of termination must be covered
Load Life Humidity	40°C, 95% RH, D.C. rated voltage for 1.5 hours ON 30 minutes OFF. Cycle repeated 500 hours.	ΔR ≤ ± 1%

● Reference Standards: IEC 60115-1 / JIS C 5201-1