

APPROVAL SHEET

Product Name : Surface Mount Metal Film Power Resistor

Part No. : SMS Series

Description : Size 3910 / 4720 / 6727



Surface Mount Metal Film Power 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

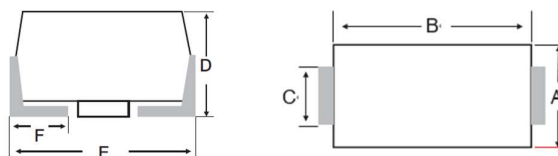
SMS	3910	F	1000	T	S
Product	Size (Inch)	Tolerance	Resistance	Packaging	Functional
Surface Mount Metal Film Power Resistor	3910 4720 6727	F : $\pm 1.0\%$ J : $\pm 5.0\%$	100 Ω =1000 1K Ω =1001 1M Ω =1004	T= Tape & Reel	S= Standard Type

Standard Electrical Specifications

Type	Power Rating at 70°C	Max. RCWV	Resistance Tolerance (%)	Temperature Coefficient (TCR; ppm/°C)	Resistance Range
SMS3910	2 W	300V	±1、±5	±100	$10\Omega \leq R \leq 2M\Omega$
SMS4720	3 W	500V	±1、±5	±100	$10\Omega \leq R \leq 2M\Omega$
SMS6727	5 W	500V	±1、±5	±100	$10\Omega \leq R \leq 2M\Omega$

- Functional code: S
- Beyond the above specification also can meet the special requirements. For detail questions, please contact us freely.

Dimension



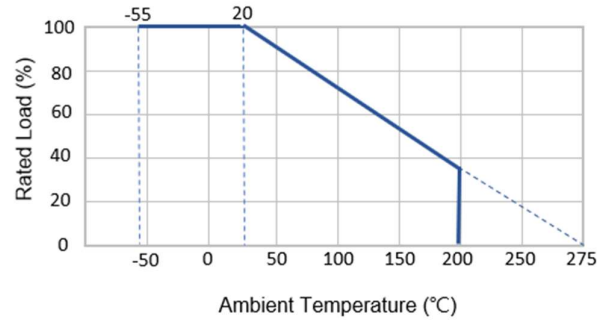
Unit : mm

Type	A	B	C	D	E	F
SMW3910	4.0 ± 0.3	6.7 ± 0.3	1.4 ± 0.3	3.55 ± 0.3	7.9 (max)	1.5 ± 0.3
SMW4720	5.5 ± 0.3	10.5 ± 0.3	1.7 ± 0.3	5.0 ± 0.3	12 (max)	2.3 ± 0.3
SMW6727	7.3 ± 0.3	13.5 ± 0.3	1.7 ± 0.3	6.8 ± 0.3	17 (max)	2.5 ± 0.3

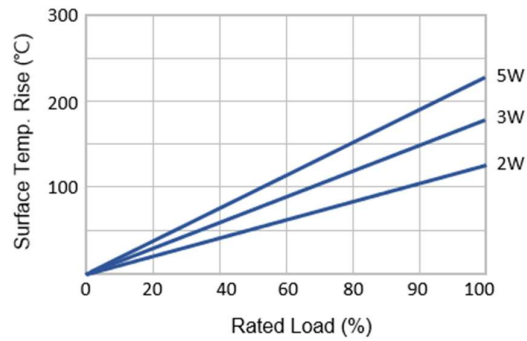
■ Derating Curve

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

Operating Temperature Range: -55 to +200°C



■ Surface Temperature Rise



■ 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.	$\Delta R \leq \pm 1\%$ 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.)	$\Delta R \leq \pm 1\%$ No mechanical damage
Power Rating Load	Rated voltage for 30 minutes	$\Delta R \leq \pm 1\%$ 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	$\Delta R \leq \pm 1\%$
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.	$\Delta R \leq \pm 1\%$