METAL OXIDE FILM RESISTORS

(RSF & RSS SERIES)

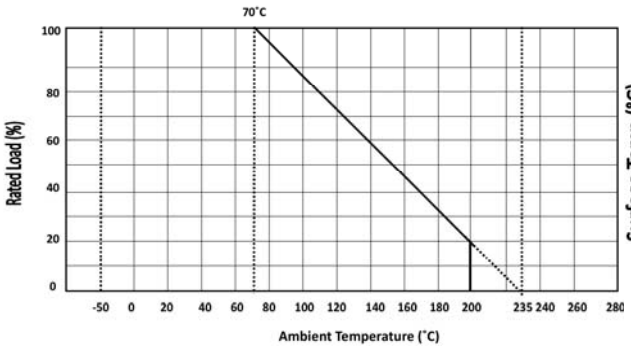
RSF series are electric power type highly reliable fixed resistors with special metal oxide film thermochemically burned on the high heat conductive base material. They include those of flame-resisting coating type and nonflammable coating type and owing to their uniform quality produced through the most modern products able to use easily for various kinds of electronic devices and instruments.
RSS are small-sized metal oxide film resistors, apply high aluminum content ceramic cores with perfoemance for compact sizes.

Features

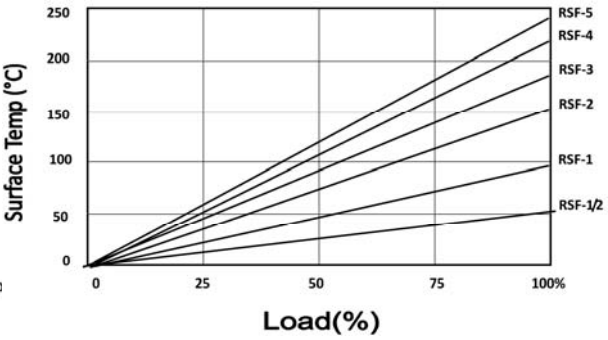
1.Small in size comparatively.
2.Electrical and mechanical stability and high reliability.
3.Best resistive to heat, humidity and noncombustible.
4.Annual shift is the lowest for the strengthen metal oxide film.
5.Low noise,with high resistance value which wire wound type can not be produced.

- **Coating and marking resist IPA or other cleaning solvents**
- **Improved stability,dissipation,and low TCR available, Consult factory.**
- **RSF 1/2-3W apply color code,RSF 4-7W apply graphic marking.**

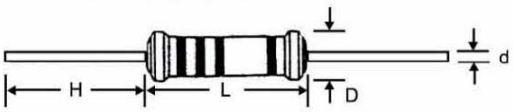
Derating Curve



Surface Temp Rise



Dimensions



General Specification

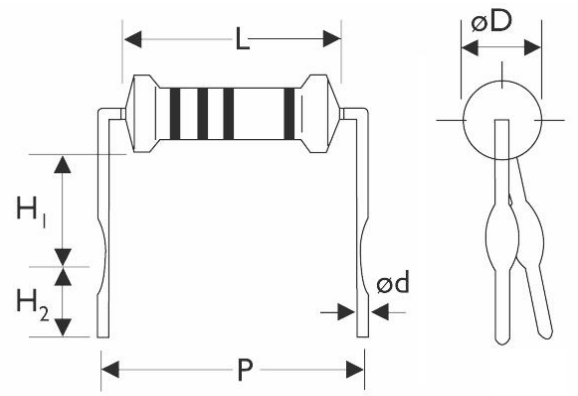
Style		Dimensions				Max.	Max.	Resistance Range
RSS	RSF	L	D	d	H(MN)	Working V.	Overload V.	± 5%(J)
1/2W	1/4W	6.5±1	2.3±0.5	0.50±0.05	25	250 V	500V	0.1Ω~1M
1W	1/2W	9±1	3.5±0.5	0.55±0.05	25	300V	600V	0.1Ω~1M
2W	1W	11±1	4.5±0.5	0.73±0.05	27	350 V	700 V	0.1Ω~1M
3W	2W	15.5±1	5.5±0.5	0.75±0.05	27	350 V	700V	0.1Ω~1M
5W	3W	25±1	8.5±0.5	0.75±0.05	27	500V	1000V	0.5Ω~1M
6W	4W	32±1	8.5±0.5	0.75±0.05	27	500V	1000V	10Ω~150KΩ
7W	5W	41±1	8.5±0.5	0.75±0.05	27	750 V	1000V	10Ω~150KΩ
10W	7W	53±1	8.5±0.5	0.75±0.05	27	750V	1000V	10Ω~150KΩ

Characteristics

Requirements	Performance	Test Method	
		JIS-C-5202	MIL-STD202
Operating Temp. Range	-55˚C~+155˚C	—	—
Temp. Coefficient (ppm/˚C)	±350	5.2	METHOD 304
Short Time Overload	△Rmax≦±(1%+0.05Ω)	5.5-A	—
Resistance to Soldering Heat	△Rmax≦±(1%+0.05Ω)	6.4. 350˚C 3 Sec	METHOD210
Temp. Cycling	△Rmax≦±(1%+0.05Ω)	7.4.-55˚C/85˚C, 5 cycle	METHOD107
Moisture Resistance	△Rmax≦±5%	7.9 95%RH on-off 1.000 hr	METHOD 106
Load Life	△Rmax≦±5%	7.10 70˚C RH on-off 1.000 hr	METHOD 108
Dielectric Withstanding Voltage	△Rmax≦±(0.5%+0.05Ω)	5.7 -A	METHOD 301
Insulation Resistance	10^4MΩ~	5.6 -A	—
Non-Combustibility	The rsistor shall withstand Overload test in accordance with Article UL 492.2.13 without producing a fire hazard.		

***Note: Lower TCR ± 200 ppm or ± 100ppm also available, consult to factory**

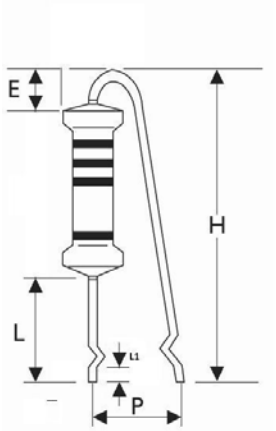
MF FORM



Unit: mm

RSS	RSF	D ± 0.5	L ± 1	P	H1	H2 ± 1
2W	1W	4.5	11	15±1.5	7±1	4.5
3W	2W	5.5	15	20±2	10±2	4.5
5W	3W	8.5	24	30±2	13±2	4.5

FK FORM



*With/without leads kink or kink at only one lead can be done by customers' request

RSS	RSF	D ± 0.5	L ± 1	H ± 3	d±0.05	Pref	L1±1	E
2W	1W	4.5	10	25MAX	0.73	8	4	3.5MAX
3W	2W	5.5	10	30MAX	0.75	8	4	3.5MAX

Part Number system

RSF — 2W 103 J T

	Wattages	Resistance	Tolerance	Packaging codes
RSF-Metal Oxide Film Resistor RSS-Metal Oxide Film Resistor Small Size		3-digit code 103=10K ohm	J=5% F=1%	R=Tape reeled T=AMMO Tape/box FK, MF-Formed & Cut Leads B=Bulk Pack, Straight Leads

Note: 52, 63 and 73 MM taping are available for different Wattages