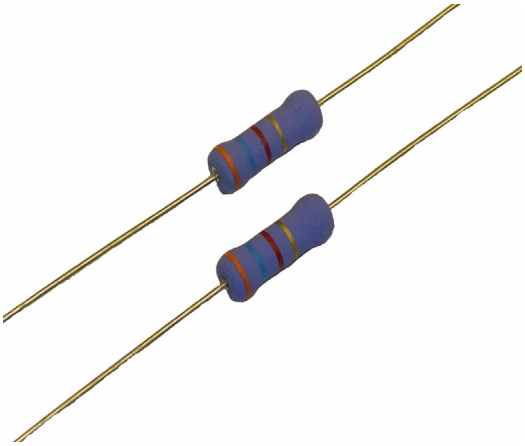
RS / RSM Series — Metal Oxide Resistors



Features

- Lower-cost alternative to Carbon Comps and Wirewounds
- Flameproof – meets overload test of UL #1412
- Meets solvent test of Mil Standard 202, Method 215
- Cut and formed product is available on select sizes; contact factory for details
- RSM style an ideal choice when size constraints apply
- Operating temperature range: -55°C to +155°C
- Temperature coefficient of resistance of ±200ppm
- Coating meets UL 94V-0
- Panasert lead form available; contact factory for details
- RoHS compliant / lead-free available (RSF, RSMF)

Electrical Specifications

Type / Code	Power Rating (Watts) @ 70°C	Maximum Working Voltage*	Maximum Pulse Voltage	Dielectric Withstanding Voltage	Resistance Temperature Coefficient	Ohmic Range and Tolerance		
						1%	2%	5%
RS 1/2	0.5W	250	400	400	±200 ppm/°C	0.1Ω – 150K	0.1Ω – 150K	0.1Ω – 1M
RS 1	1W	350	600	500	±200 ppm/°C	0.1Ω – 100K	0.1Ω – 100K	0.1Ω – 1M
RS 2	2W	350	600	500	±200 ppm/°C	0.1Ω – 120K	0.1Ω – 120K	0.1Ω – 1M
RS 3	3W	500	800	800	±200 ppm/°C	10Ω – 4.99K	1Ω – 150K	1Ω – 150K
RS 5	5W	750	1,000	800	±200 ppm/°C	–	10Ω – 10K	1Ω – 180K
RSM 1/2	0.5W	250	400	400	±200 ppm/°C	0.1Ω – 46.4K	0.1Ω – 47K	0.1Ω – 470K
RSM 1	1W	350	600	500	±200 ppm/°C	0.1Ω – 75K	0.1Ω – 75K	0.1Ω – 470K
RSM 2	2W	350	600	500	±200 ppm/°C	0.1Ω – 100K	0.1Ω – 100K	0.1Ω – 470K
RSM 3	3W	500	800	500	±200 ppm/°C	0.1Ω – 118K	0.1Ω – 120K	0.1Ω – 470K
RSM 5	5W	750	1,000	750	±200 ppm/°C	100Ω – 4.99K	10Ω – 20K	1Ω – 150K

* Lesser of √PR or maximum working voltage.

How to Order

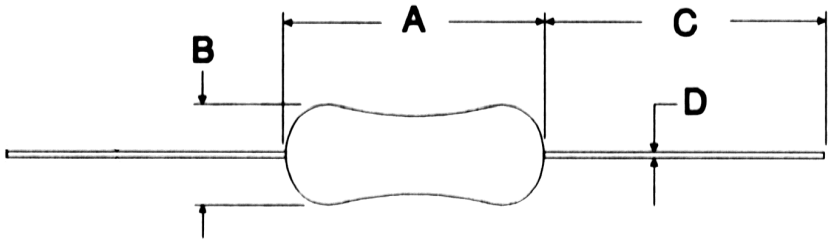
RS	1/2	0.47	5%	R
SEI Type	Code	Nominal Resistance	Tolerance	Packaging

Type	Description
RS	EIA Standard
RSM	Mini
RSF	Standard RoHS
RSMF	Mini RoHS

Code
1/2
1
2
3
5

Tolerance	Values
1%	E96
2%	E24
5%	E24

Code	Description	SEI Types	Pkg Qty
R	Tape	RSM 1/2	5,000
R	Tape	RS 1/2, RS 1, RSM 1, RSM 2	2,500
R	Tape	RS 2, RSM 3	1,000
R	Tape	RS 3, RSM 5	500
T	Ammo	RS 1/2, RSM 1	2,000
T	Ammo	RSM 1/2	5,000
T	Ammo	RS 1, RSM 2	1,000
T	Ammo	RS 2, RS 3, RSM 3, RSM 5	500
A	Bulk	All, except RS 5	1,000
A	Bulk	RS 5 (Bulk only)	250



Mechanical Specifications					
Type / Code	A Body Length	B Body Diameter	C Lead Length (Bulk)	D Lead Diameter	Units
RS 1/2	0.35 ± 0.04 9.0 ± 1.0	0.12 ± 0.02 3.0 ± 0.5	1.10 ± 0.08 28.0 ± 2.0	0.028 ± 0.002 0.70 ± 0.05	inches mm
RS 1	0.43 ± 0.04 11.0 ± 1.0	0.16 ± 0.02 4.0 ± 0.5	1.10 ± 0.08 28.0 ± 2.0	0.031 ± 0.002 0.80 ± 0.05	inches mm
RS 2	0.59 ± 0.04 15.0 ± 1.0	0.22 ± 0.04 5.5 ± 1.0	1.38 ± 0.12 35.0 ± 3.0	0.031 ± 0.002 0.80 ± 0.05	inches mm
RS 3	0.98 ± 0.08 25 ± 2.0	0.34 ± 0.06 8.5 ± 1.5	1.38 ± 0.12 35.0 ± 3.0	0.031 ± 0.002 0.80 ± 0.05	inches mm
RS 5	1.61 ± 0.08 41.0 ± 2.0	0.34 ± 0.06 8.5 ± 1.5	1.38 ± 0.12 35.0 ± 3.0	0.031 ± 0.002 0.80 ± 0.05	inches mm
RSM 1/2	0.24 ± 0.02 6.0 ± 0.5	0.09 ± 0.01 2.3 ± 0.2	1.10 ± 0.08 28.0 ± 2.0	0.024 ± 0.002 0.60 ± 0.05	inches mm
RSM 1	0.35 ± 0.04 9.0 ± 1.0	0.12 ± 0.02 3.0 ± 0.5	1.10 ± 0.08 28.0 ± 2.0	0.028 ± 0.002 0.70 ± 0.05	inches mm
RSM 2	0.43 ± 0.04 11.0 ± 1.0	0.16 ± 0.02 4.0 ± 0.5	1.10 ± 0.08 28.0 ± 2.0	0.031 ± 0.002 0.80 ± 0.05	inches mm
RSM 3	0.59 ± 0.04 15.0 ± 1.0	0.22 ± 0.04 5.5 ± 1.0	1.38 ± 0.12 35.0 ± 3.0	0.031 ± 0.002 0.80 ± 0.05	inches mm
RSM 5	0.98 ± 0.08 25.0 ± 2.0	0.34 ± 0.06 8.5 ± 1.5	1.38 ± 0.12 35.0 ± 3.0	0.031 ± 0.002 0.80 ± 0.05	inches mm

Performance Characteristics		
Test	Standard / Method	Requirement
Biased Humidity	MIL-STD 202, Method 103	± 1.5%
Resistance to Solder Heat	MIL-STD 202, Method 103	± 0.5%
Dielectric Withstanding Voltage	MIL-STD 202, Method 103	± 0.5%
Load Life	MIL-STD 202, Method 103	± 1.0%
Terminal Strength	MIL-STD 202, Method 103	± 0.2%
Temperature Cycling	JESD22 Method JA-104	± 1.0%
Moisture Resistance	MIL-STD 202, Method 103	± 0.5%
Vibration	MIL-STD 202, Method 103	± 0.5%
Low Temperature Operation	MIL-STD 202, Method 103	± 0.5%