Metal Oxide Resistors

Metal Oxide Resistors on The Pulse in Various Forming Styles for Different Applications

Preview

Now available from Token Electronics is a new range of highly stable and reliable metal oxide resistors providing high power in a small package with various forming styles and different leads for different applications.

New RS series resistors are ideal for pulse applications in adverse conditions and are available in different sizes with power ratings of 0.5W to 10W for a power voltage range from 200V to 850V. Highly temperature resistant the devices feature a resistance range from 10Ω to 47KΩ.

RS series resistors are available in various forming styles and different leads for different applications like power supplies, amplifiers, household appliances and ballasts.

Manufactured by depositing a homogeneous oxide film of metal alloy onto a high-grade ceramic body, the metal oxide resistors are coated with a nonflammable lacquer providing mechanical, electrical and climatic protection.

The devices come packaged in ammo pack boxed or tape and reel format. All RS Series devices are RoHS-compliant, and compatible with high temperature soldering processes normally employed for lead free solders.

Contact us with your specific needs.

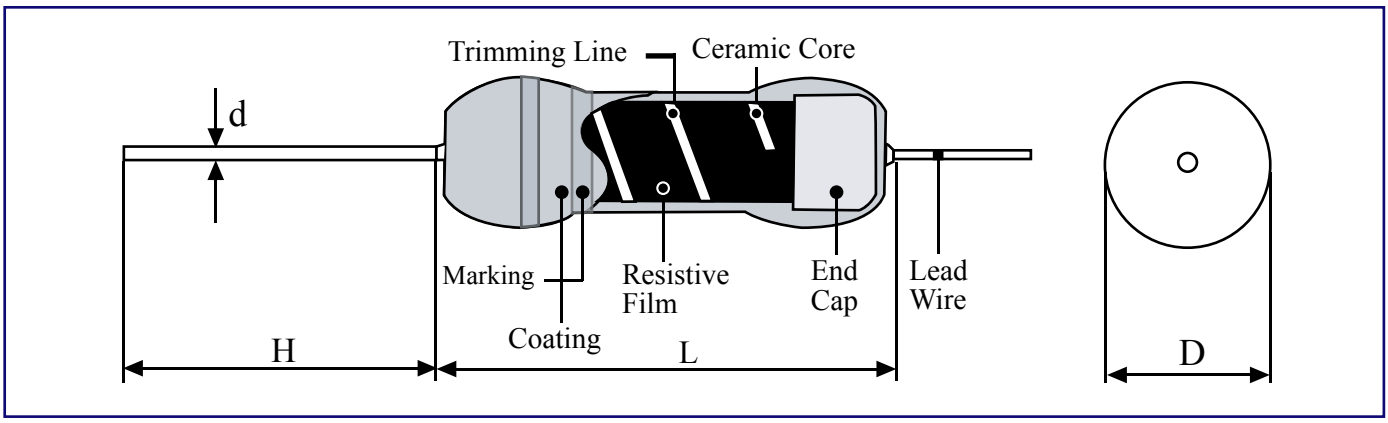
Applications

- Ballasts
- Amplifiers
- Power supplies
- Telecommunications
- Household appliances
- Automotive, Computer, Instrumentation

Features

- Tolerances: G (±2%), J (±5%)
- Lead (Pb)-free and RoHS compliant
- Power wattages up to 10W at + 25 °C
- Operating temperature range: -55°C~200°C
- Axial leaded type, high power at compact sizes
- Replace carbon composition components in some applications

Specifications & Dimensions (Unit: mm)



Type		L	D	H	d ± 0.05	MAX Working Voltage		Dielectric Withstanding Voltage	
RSS	RSN					RSS	RSN	RSS	RSN
1/2W	1/4W	6.0 ± 0.3	2.3 ± 0.3	26 ± 1	0.40~0.50	200V	300V	400V	500V
1W	1/2W	9.0 ± 0.5	3.0 ± 0.5	26 ± 1	0.50~0.55	250V	350V	500V	600V
2W	1W	11 ± 1.0	4.0 ± 0.5	26 ± 3	0.75~0.80	300V	350V	600V	700V
3W	2W	15 ± 1.0	5.0 ± 0.5	35 ± 3	0.75~0.80	350V	350V	700V	700V
5W	3W	17 ± 1.0	6.0 ± 0.5	35 ± 3	0.75~0.80	350V	500V	700V	1000V
6W	5W	24 ± 1.0	8.0 ± 0.5	38 ± 3	0.75~0.80	500V	700V	800V	1000V
7W	6W	24 ± 1.0	8.0 ± 0.5	38 ± 3	0.75~0.80	500V	700V	800V	1000V
10W	7W	41 ± 1.0	8.0 ± 0.5	38 ± 3	0.75~0.80	750V	850V	850V	1000V
	10W	53 ± 1.0	8.0 ± 0.5	38 ± 3	0.75~0.80	750V	850V	850V	1000V

Electrical Performance

Requirements		Characteristics	Test Method	
			JIS C 5202	MIL-R-22684B
Operating Temp.Range		-55°C~200°C		
Temp.Coefficient (ppm C)		± 300	5.2	4.6.11
Max. Ressitance Changes	Short Time Overload	± (1%+0.05Ω)	5.2A	4.6.5
	Effect of Soldering	± (1%+0.05Ω)	6.4 350°C 2Sec	4.6.9
	Temp.Cycling	± (1%+0.05Ω)	7.4-55°C / 85°C	4.6.3
	Moisture Resistance	± 5%	7.9 1,000hr	4.6.10
	Load Life	± 5%	7.10 1,000hr	4.6.12
Dielectric Withstanding Voltage		± (0.5%+0.05Ω)	5.7A	4.6.7
Non-Combustibility		The resistor shall withstand Overload test in accordance with Artice UL492.2 13 without producing a fire hazard.		
Resistance to Solvents		No damage on the appearance,co.or bands.		

Application Notes

- Never use organic solvents to clean non-flammable resistors.
- Maintaining a surface temperature of 200°C or less will extend resistors service life.
- Although the hardness exceeds that of a 3H pencil lead, do not nick the coating with screwdrivers or other pointed objects.
- Smoke emitted from non-flammable resistors on initial use in powered circuits is a normal phenomenon and the component can be safely utilized.
- Non-flammable resistors cannot be utilized in oil. Non-flammable resistors cannot be used in high frequency machinery because of the inductance produced by the grooving.
- Avoid touching non-flammable resistors in operation; the surface temperature ranges from approximately 350 °C to 400°C when utilized at the full rated value.
- All metal oxide film resistors (RSS, RSN) manufactured by Token Electronics Co., Ltd. comply with the U.S. UL-94 non-flammability test, Class V-0, a continuous combustion period of zero seconds.
- Less resistant against external shocks than ordinary resistors due to special flame retardant coating. So, never give shocks or vibrations on the resistors. Also never damage them by picking up the coated films with pliers, tweezers, etc.
- After cleaning, no external power should be put on the coated films before they are well dried.

How to Order

❶	❷	❸	❹	❺
RSS	0.5W	1KR	J	TB

❶ Part Number: RSS, RSN

❷ Rated Power (W)

❸ Resistance Value (Ω)

Code	Resistance Value
10R	10Ω
100R	100Ω
1K	1KΩ
10K	10KΩ

❹ Resistance Tolerance (%)

Code	Resistance Tolerance
J	±5%

❺ Package

Code	Package
TB	Taping Box

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