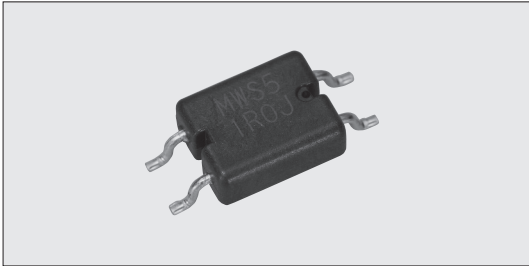


MOLD TYPE RESISTORS



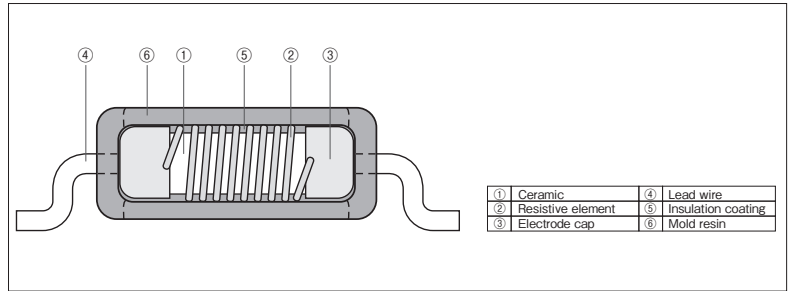
Mold Type Resistors

MWS Mold Wirewound Resistors



Coating color : Black

Construction



Features

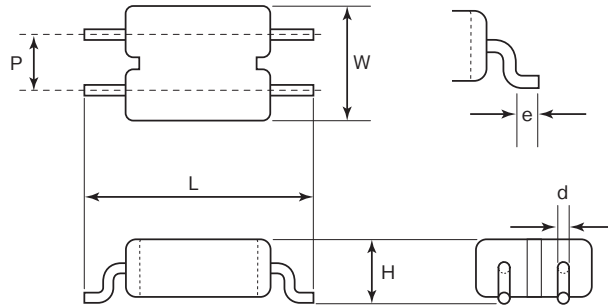
- Flame retardant coating (UL94 V-0)
- Products meet EU-RoHS requirements.
- It has excellent pulse resistance and is suitable as a surface mount component for precharge resistance, snubber resistance, and damping resistance.
- AEC-Q200 Tested.

Applications

- Car electronics
- Industrial equipment

Dimensions

Type	Dimensions (mm)						Weight (g) (1000pcs)
	L	W	H	P	e	d (Nominal)	
MWS5	16.9±0.2	8.6±0.2	4.8±0.2	4.2±0.2	1.4±0.2	0.8	1000



Type Designation

Example

MWS	5	C	TEG	100	J
Product Code	Power Rating	Terminal Surface Material	Taping	Nominal Resistance	Resistance Tolerance
	5:5W	C:SnCu	TEG:12mm pitch plastic embossed	3 digits	±5%

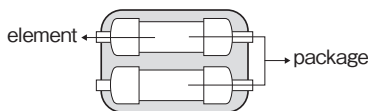
Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS.

For further information on taping, please refer to APPENDIX C on the back pages.

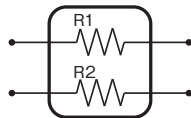
Ratings

Type	Power Rating		Rated Terminal Part Temp.	Resistance Range (Ω) J: ±5% (E24)	T.C.R. (×10 ⁻⁶ /K)	Operating Temp. Range	Taping & Q'ty/ Reel (pcs)
	Package	Piece					
MWS5	5W	2.5W	+130°C	1~470	±200	-55°C~+200°C	1500

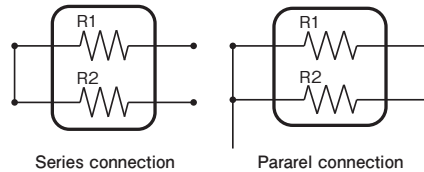
Element and package



Equivalent circuit (R1=R2)

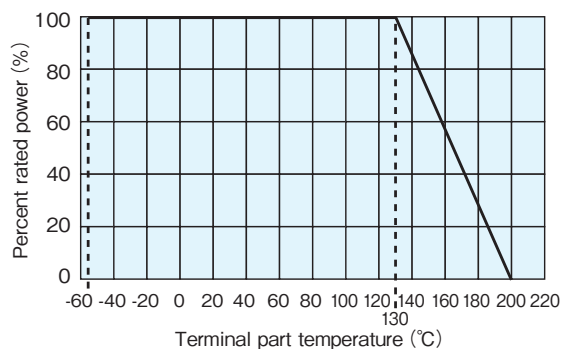


Connection example (R1=R2)



$$\text{Rated voltage} = \sqrt{\text{Power Rating} \times \text{Resistance value}}$$

Derating Curve



When the terminal part temperature of the resistor exceeds the rated terminal part temperature shown above, the power shall be derated according to the derating curve.

※ Please refer to "Introduction of the derating curves based on the terminal part temperature" on the beginning of our catalog before use.

Performance

Test Characteristics	Performance Requirements $\Delta R \pm (\% + 0.05\Omega)$		Test Methods
	Limit	Typical	
Resistance	Within specified tolerance内	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/−55°C and +25°C/+125°C
Rapid change of temperature	2	0.6	−55°C(30min.) / +155°C(30min.) 1000cyc.
Overload(Short time)	5	2	Power Rating ×4, 5s
Resistance to soldering heat	1	0.8	350°C±10°C, 3.5sec. or 260°C±5°C, 10s
Moisture resistance	5	3	Power Rating×1/10, 85°C, 85%RH, 1000h
Endurance of Rated Terminal part Temperature	5	3	130°C±2°C, 1000h 1000h, 1.5h ON/0.5h OFF cycle
Resistance to solvent	No abnormality in appearance such as disappearance of making, etc.	—	On immersing the sample in IPA for 3 minutes, the resistor surface should be lightly wiped with a dry cloth (velvet or gauze).
High temperature exposure	2	0.3	+155°C, 1000h

Precautions for Use

- In case of using them for an AC circuit, abnormal phenomena like oscillation etc. occasionally happen as they have an inductance or a parasitic capacitance because of their wiring structures. Use them by taking the dispersion of constants of other components into the consideration.