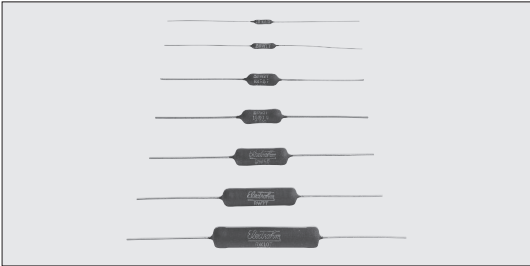


RW Coat-insulated Miniature Precision Power Wirewound Resistors



Coating color : Black
Marking : Alphanumeric

Features

- Resistors meet MIL-R-26E (U and V characteristics) and surface temp. (hot spot) 350°C max.
- Resistors with a wide range of 0.1Ω~62kΩ, covering applications from precision to power.
- RW□N type resistors are non-inductive wound and can be used in high frequency bands.
- Products meet EU-RoHS requirements.

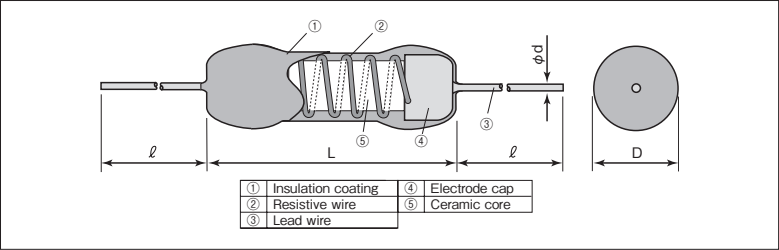
Applications

- Inrush current preventive resistors.
- Resistors for various power supplies such as instrumentations, communications, medical, etc.
- Resistors for semiconductor burn-in boards.

Reference Standard

MIL-R-26E

Construction



Dimensions

Type	Dimensions (mm)				Weight(g) (1000pcs)
	L	D	d (Nominal)	ℓ	
RW1/2 · RW1/2N	8.0±1.0	1.6 ^{+1.0} ₋₀	0.5	38±3	180
RW1 · RW1N	10.5±1.0	2.7±1.0			270
RW2 · RW2N	13.0±1.0	5.2±1.0	0.8		1,000
RW3 · RW3N	16.5±1.0	6.4±1.0			1,820
RW5 · RW5N	22.0±1.0	7.8±1.5	1.0		3,240
RW7 · RW7N	31.5±1.0				5,060
RW10 · RW10N	46.0±1.5	9.3±1.5			8,900

Type Designation

Example

RW	1/2		T	100	J
Product Code	Power Rating	Winding Method	Terminal Surface Material	Nominal Resistance	Resistance Tolerance
	1/2 : 0.5W 1 : 1W 2 : 2W 3 : 3W 5 : 5W 7 : 7W 10 : 10W	Nil : Standard winding N : Non-inductive winding	T : Sn	D, F : 4 digits H, J : 3 digits	D : ±0.5% F : ±1% H : ±3% J : ±5%

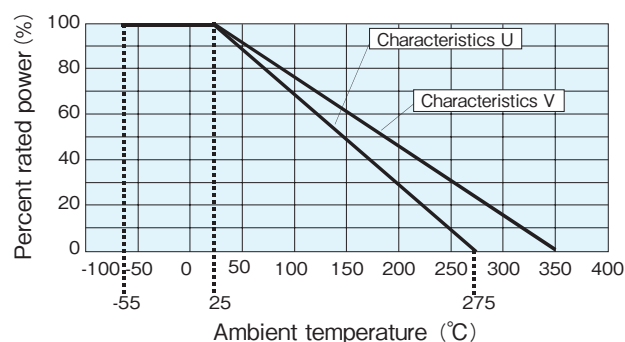
Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS.

Ratings

Type	Power Rating		Resistance Range (Ω)				T.C.R. (×10 ⁻⁶ /K)	Max. Working Voltage	Max. Overload Voltage
	Characteristics U	Characteristics V	D : ±0.5% E24 · E96 25×10 ³ ·50×10 ³	F : ±1% E24 · E96 25×10 ³ ·50×10 ³	H : ±3% E24 25×10 ³ ·50×10 ³	J : ±5% E24 25×10 ³ ·50×10 ³			
RW1/2T	0.5W	—	10~2.61k	10~2.61k	0.47~2.7k	0.47~2.7k	+20/−50 : R≥10Ω	80V	150V
RW1/2NT			—	10~2.37k	10~2.4k	10~2.4k			
RW1T	1W	—	1~5.11k	1~5.11k	0.1~5.1k	0.1~5.1k		130V	300V
RW1NT			—	10~3.74k	10~3.6k	10~3.6k			
RW2T	2W	3W	1~10k	1~10k	0.1~10k	0.1~10k		140V	500V
RW2NT			—	15~10k	10~10k	10~10k			
RW3T	3W	5W	1~15k	1~15k	0.1~15k	0.1~15k	+50/−70 : 1Ω≤R<10Ω	200V	600V
RW3NT			—	15~15k	15~15k	15~15k			
RW5T	5W	7W	1~30.1k	1~30.1k	0.1~30k	0.1~30k		400V	700V
RW5NT			—	20~29.4k	20~30k	20~30k			
RW7T	7W	10W	1~45.3k	1~45.3k	0.1~47k	0.1~47k		600V	800V
RW7NT			—	36~44.2k	36~43k	36~43k			
RW10T	10W	14W	1~60.4k	1~60.4k	0.1~62k	0.1~62k	+400/−90 : R<1Ω	1000V	1500V
RW10NT			—	62~49.9k	62~51k	62~51k			

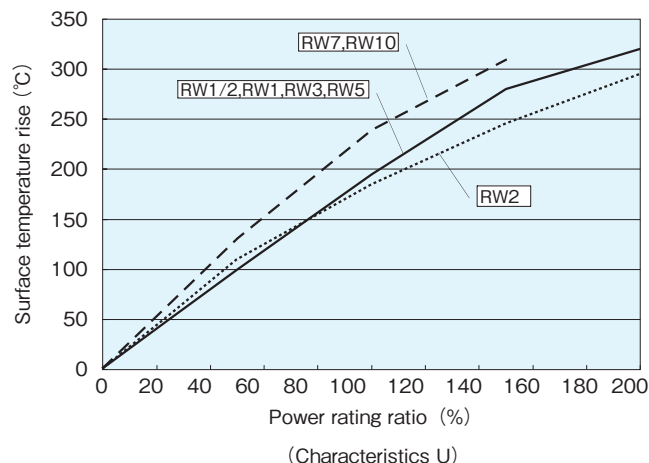
※Resistance tolerance B (±0.1%) available. Please refer to us.
Rated Ambient Temperature : +25°C
Operating Temperature Range : Characteristics U −55°C~+275°C, Characteristics V −55°C~+350°C
Rated voltage=√Power Rating×Resistance value or Max. working voltage, whichever is lower.
Characteristics U and V: Each performance is different depending on use conditions, but no difference of the product itself.

Derating Curve

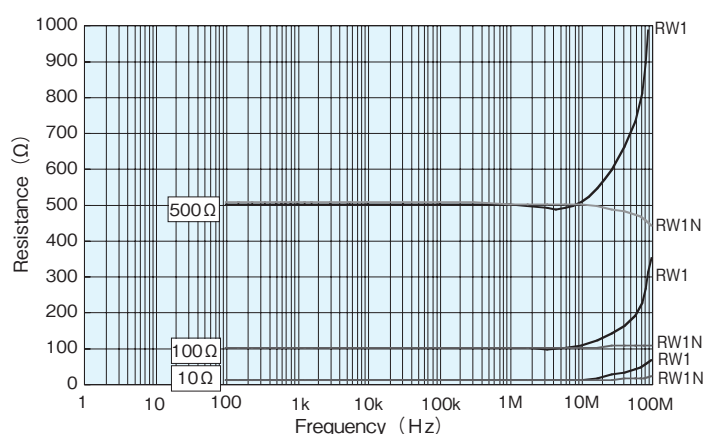


For resistors operated at an ambient temperature of 25°C or higher, the power shall be derated in accordance with the above derating curve.

Surface Temperature Rise



Frequency Characteristic (Reference)



Performance

Test Items	Performance Requirements $\Delta R \pm (\% + 0.05\Omega)$	Test Method
Resistance	Within specified tolerance	25°C
T.C.R.	Within specified T.C.R.	+25°C/-55°C, +25°C/+125°C
Overload (Short time)	0.2 : U 2 : V	Rated power $\times 5$ or Max. overload vol., whichever is lower, for 5s Rated power $\times 10$ or Max. overload vol., whichever is lower, for 5s
Resistance to soldering heat	0.1	350°C $\pm 10^\circ\text{C}$, 3s $\pm 0.5\text{s}$ or 260°C $\pm 5^\circ\text{C}$, 10s $\pm 1\text{s}$
Moisture resistance	0.2 : U 2 : V	Power rating $\times 1/10$, 40°C, 90%~95%RH, 1000h 1.5h ON/0.5h OFF cycle
Endurance at 25°C	0.5 : U 3 : V	25°C, 2000h 1.5h ON/0.5h OFF cycle
High temperature exposure	0.2 : U 2 : V	275 $\pm 5^\circ\text{C}$, 250h 350 $\pm 5^\circ\text{C}$, 250h

Precautions for Use

- Be careful to handle these resistors because outer coatings are comparatively weak to outer shock due to flameproof special coats. Please wash them to a minimum. No external force is given to the coating films until they are well dried because the coating films become weaker right after washing. The original strength will be returned after they are dried, so please pay attention not to apply any external force onto the coating film of resistors for 20 minutes after drying. Especially no PC boards shall be piled up.
- 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.