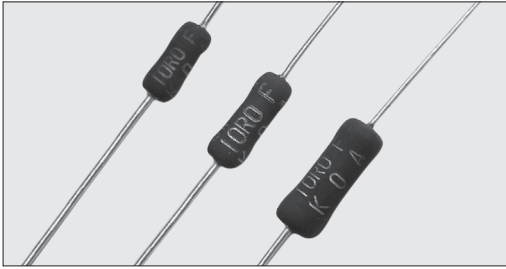
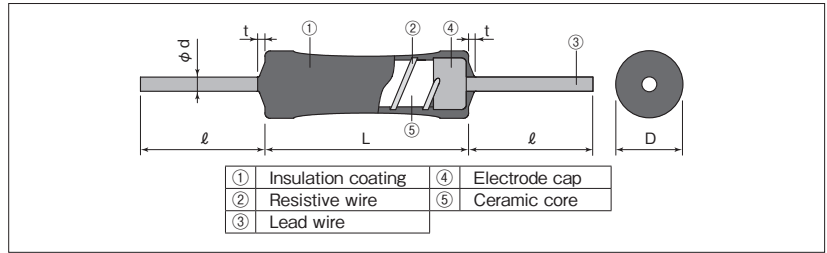


CW-H Coat-Insulated Miniature Wirewound Resistors



Coating color : Black
Marking : Alphanumeric

Construction



Features

- Resistors meet MIL-PRF-26.
- High precision resistor with T.C.R. : $\pm 20 \times 10^{-6}/K$.
- Excellent stability for a long time.
- Products meet EU-RoHS requirements.

Reference Standards

MIL-PRF-26
JIS-C-5201-1

Dimensions

Type	Dimensions (mm)					Weight (g) (1000pcs)
	L \pm 1.0	D \pm 1.0	$\ell \pm 3.0$	d (Nominal)	t Max.	
CW1H	9.0	3.5	30	0.8	3	650
CW2H	12.0	4.0				950
CW3H	15.0	6.0				1,780

Type Designation

Example

CW	1	H	C	T52	A	1R00	F
Product Code	Power Rating	Style	Termination Surface Material	Taping & Forming	Packaging	Nominal Resistance	Resistance Tolerance
	1 : 1W 2 : 2W 3 : 3W	H : Stability	C : SnCu	See table below	A : AMMO R : Reel Nil : BOX	4 digits	D : $\pm 0.5\%$ F : $\pm 1\%$

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

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

Taping & Forming Matrix

Type	Axial Taping			Radial Taping		L Forming			
	T52	T521	T631	VTP	GT	L12.5A	L15A	L20A	L25A
CW1H	○			○ ^{*1}	○	○	○		
CW2H	○ ^{*1}	○		○	○		○	○	
CW3H		○	○		○			○	○

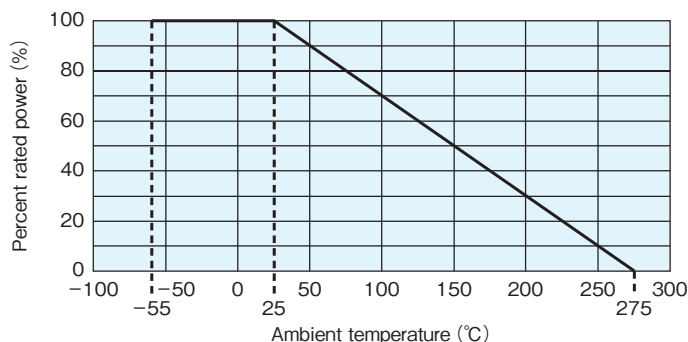
*1 Applicable to 0.47Ω or over

Ratings

Type	Power Rating	Rated Ambient Temperature	Resistance Range (Ω)		T.C.R. ($\times 10^{-6}/K$)	Operating Temp. Range	Max. Working Voltage (V)	Max. Overload Voltage (V)	Taping & Q' ty /AMMO (pcs)		
			D : $\pm 0.5\%$ E24 · E96	F : $\pm 1\%$ E24 · E96					T52	T521	T631
CW1H	1W	+25°C	0.47~220	0.1~430	$\pm 20: R \geq 10\Omega$ $\pm 50: R < 10\Omega$	-55°C ~ +275°C	$E = \sqrt{P \times R}$	$E = \sqrt{P \times R \times 5}$	1,000	—	—
CW2H	2W		0.47~750	0.1~2k					1,000	1,000	—
CW3H	3W		0.47~1k	0.1~3k					—	500	500

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

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.

Performance

Test Items	Performance Requirements $\Delta R \pm (\% + 0.05\Omega)$		Test Methods
	Limit	Typical	
Resistance	Within specified tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/-55°C and +25°C/125°C
Short time overload	0.2	0.15	Power rating × 5, 5s
Resistance to soldering heat	0.2	0.15	350°C ± 10°C, 3s ± 0.5s 260°C ± 5°C, 10s ± 1s
Load life	0.5	0.45	25°C, Power rating 1.5h ON/0.5h OFF 2000h
Low Temperature	0.2	0.15	-65°C, 24h
High Temperature	0.5	0.45	+275°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.