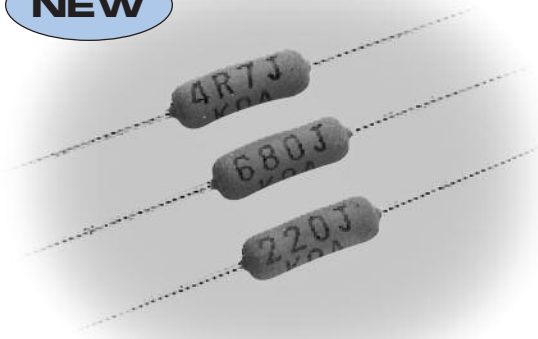


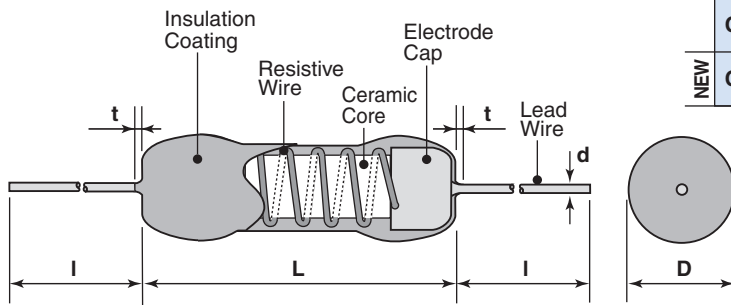
NEW



features

- Flameproof retardant coating (equivalent to UL94-V-0)
- Fail-safe mains fusing at AC 250V (CWFS23: 4.7Ω~9.1Ω: AC200V)
- Products with lead-free terminations meet EU RoHS

dimensions and construction



Type	Dimensions inches (mm)				
	L	D	I	d (nom.)	t (max.)
CWFS23	.472±.039 (12.0±1.0)	.157±.039 (4.0±1.0)	1.18±.118 (30.0±3.0)	.031 (0.8)	.118 (3.0)
NEW CWFS35	.591±.039 (15.0±1.0)	.236±.039 (6.0±1.0)	1.18±.118 (30.0±3.0)	.031 (0.8)	.118 (3.0)

ordering information

Product Code CWF	Type S: Safety Fusing	Power Rating 23: 3W NEW 35: 5W	Termination Material C: SnCu	Taping and Forming 23: T52 35: T521	Packaging A: Ammo	Nominal Resistance J: 3 digits	Tolerance J: ±5%
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Contact KOA when you have control request for environmental hazardous material other than the substance specified by EU RoHS.
For further information on packaging, please refer to Appendix C.
Lead length changes depending on taping and forming type.

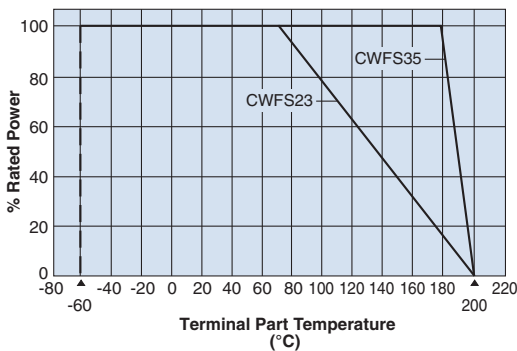
applications and ratings

NEW	Part Designation	Power Rating	Rated Terminal Part Temperature	Resistance Range E-24 (J±5%)	Fusing Characteristics		Absolute Maximum Working Voltage	Operating Temperature Range
					Fusing Power	Fusing Time		
	CWFS23	3	+120°C	4.7Ω - 100Ω	90W	30 Sec Max.	±100	-55°C to +200°C
	CWFS35	5	+180°C	4.7Ω - 100Ω	150W	30 Sec Max.	±100	

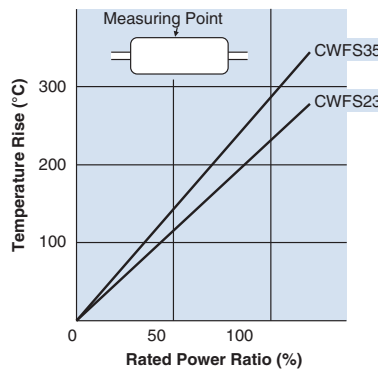
Rated voltage= $\sqrt{\text{Power Rating} \times \text{Resistance value}}$

environmental applications

Derating Curve



Temperature Rise (Ref.)



Fixing Board $t=1.2$ Material: Glass Epoxy Board

Performance Characteristics

Parameter	Requirement $\Delta R \pm(\% + 0.05\Omega)$		Test Method
	Limit	Typical	
Resistance	Within regulated tolerance	—	25°C
T.C.R.	$\pm 100 \times 10^{-6}/K$	—	+25°C/-55°C and +25°C/+125°C
Melt Time	30 seconds	4 seconds	Power rating x 30
Overload (Short Time)	5%	2%	Rated rating x 10, 5 seconds
Resistance to Solder Heat	1%	0.8%	350°C \pm 10°C for 3.5 seconds or 260°C \pm 5°C for 10 seconds
Moisture Resistance	5%	4%	Power rating x 1/10, 40°C, 90 - 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance of Rated Terminal Part Temperature	5%	3%	CWFS23: 120°C \pm 2°C; CWFS35: 180°C \pm 2°C 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Resistance to Solvent	No abnormality in appearance such as disappearance of making, etc.	—	On immersing the sample in IPA for 3 min., the resistor surface should be lightly wiped with a dry cloth (velvet or gauze)