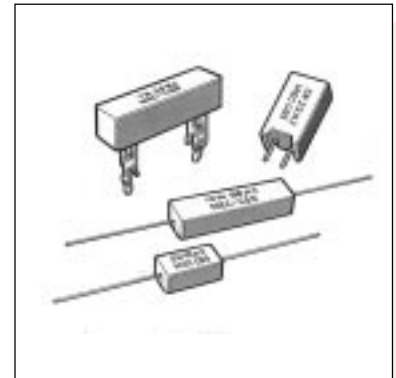


Key features

- wide value range
- stable tcr 300ppm°C
- bracketed types available
- temp operating range -55°C to +250°C
- up to 2500 volts dc
- range of connectors
- custom design opportunities welcomed



Power Resistors

type SQ series

This flexible range of power wirewound resistors either have wire or metal oxide elements. Wirewound resistors are wound on a fine non-alkali ceramic core then embodied in a ceramic case and sealed with an inorganic silica filler. Their construction gives a resistor with high insulation resistance and low surface temperature and excellent TCR.

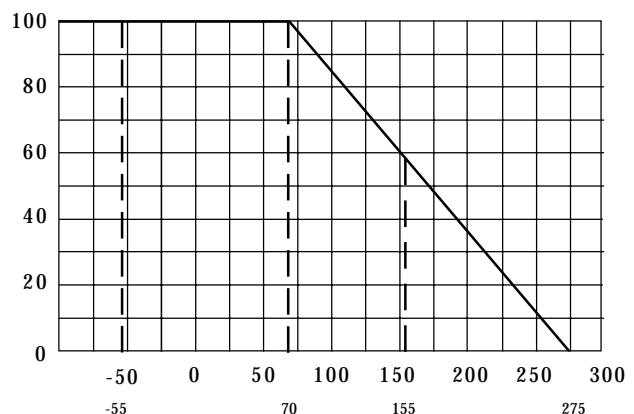
Specification

Electrical

Temperature Coefficient:	$\pm 300\text{ppm}/^\circ\text{C}$
Short Time Overload (Wire):	10 times rated power for 5 seconds
Short Time Overload (Metal Film):	5 times rated power for 5 seconds
Rated Power:	Power - See relevant table
Voltage Withstand:	1000V AC for 1 minute
Insulation Resistance:	1000M
Temperature Cycle:	-30°C to +85°C
Load Life:	1000 hours - 70°C on-off cycle
Moisture-Proof Load Life:	1000 hours - 40°C 95% RH on-off cycle
Incombustibility:	16 times rated power for 5 minutes
Maximum Overload Voltage:	2 times maximum working voltage

Power Derating Curve

For resistors operating in ambient temperatures above 70°C, power rating must be derated in accordance with the curve below.



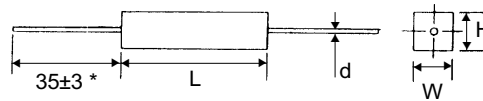
wirewound/oxide square ceramic cased

Dimensions

SQP Type

Power Rating	Dimensions (mm)				Resistance Range (ohms)		Max. Working Voltage
	W±1	H±1	L±1.5	d±0.05	Wire	Metal Film	
2W	7.0	7.0	18.0	0.65	R10~82R	83R~10K	150V
3W	8.0	8.0	22.0	0.80	R10~180R	181R~33K	350V
5W	10.0	9.0	22.0	0.80	R10~180R	181R~50K	350V
7W	10.0	9.0	35.0	0.80	R10~430R	431R~50K	500V
10W	10.0	9.0	48.0	0.80	R10~470R	471R~50K	750V
15W	12.5	11.5	48.0	0.80	R50~600R	601R~150K	1000V
20W-25W	14.0	13.5	60.0	0.80	R50~1K0	1K1~150K	1000V

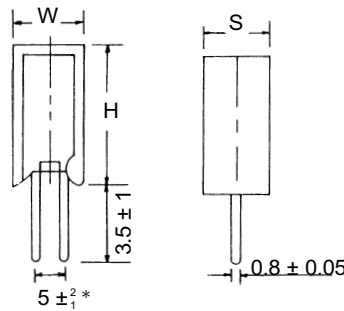
* N.B. This Dim. is 23.3mm on 2 Watt Size.



SQM Type

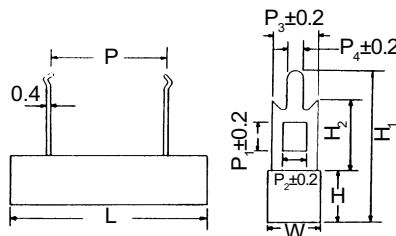
Power Rating	Dimensions (mm)			Resistance Range (ohms)		Max. Working Voltage
	W±1	H±1	S±1	Wire	Metal Film	
2W	11.0	20.0	7.0	R10~82R	83R~10K	150V
3W	12.0	25.0	8.0	R10~180R	181R~50K	350V
5W	13.0	25.0	9.0	R10~180R	181R~50K	350V
7W	13.0	39.0	9.0	R10~430R	431R~50K	500V
10W	13.0	51.0	9.0	R10~470R	471R~75K	750V
10WS	16.0	35.0	12.0	R10~360R	361R~100K	750V

* N.B. This Dim is 7.5mm on 10W



SQZ Type

Power Rating	Dimensions (mm)										Resistance Range (ohms)		Max. Working Voltage
	W±1	H±1	L±1	P±1.5	P1	P2	P3	P4	H1±1	H2±1	Wire	Metal Film	
5W	10.0	10.0	28.0	15.0	4.2	2.0	5.0	1.5	25.0	10.5	R10~130R	131~50K	350V
7W	10.0	10.0	36.0	20.0	4.2	2.0	5.0	1.5	25.0	10.5	R10~430R	431~50K	500V
10W	10.0	10.0	48.0	32.0	4.2	2.0	5.0	1.5	25.0	10.5	R20~470R	471~50K	750V
15W	12.5	12.0	48.0	32.0	4.2	2.0	5.0	1.5	26.0	10.5	1R0~600R	601~150K	1000V
20W-25W	15.0	13.0	60.0	42.0	7.0	6.0	10.0	2.7	36.0	15.0	1R0~1K0	1.1K~150K	1000V



How To Order

Common Part	Element	Rated Power	Resistor Value	Tolerance
SQP - Axial Type	W - Wire	2 - 2 Watts	0.1W (100 milli ohms) R10	J - 5%
SQM - Vertical Type	R - Metal Film	3 - 3 Watts	1.0W (1000 milli ohms) 1R0	K - 10%
SQZ - Radial Type		5 - 5 Watts	1K0 (1000 ohms) 1K0	(below 1R0)
		7 - 7 Watts		
		Etc.....		

Please Request Full Data Sheet F0475