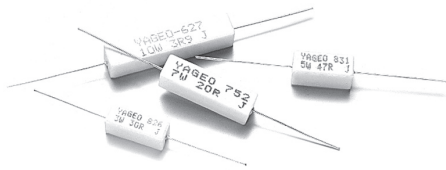


Cement Resistors

Axial Lead Type

Normal Style [SQP Series]
 Non-Inductive Style [NSP Series]



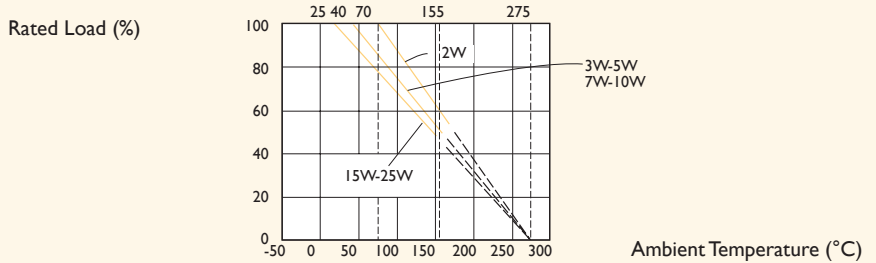
INTRODUCTION

- The materials used and the construction techniques ensure excellent flame resistance, arc resistance and moisture resistances as well as self-extinguishing capabilities. They will withstand the most rigorous loading test.
- As resistors in radio and television receivers, the hazardous conditions of smoking and redheat can be completely prevented by the proper choice of power resistors.

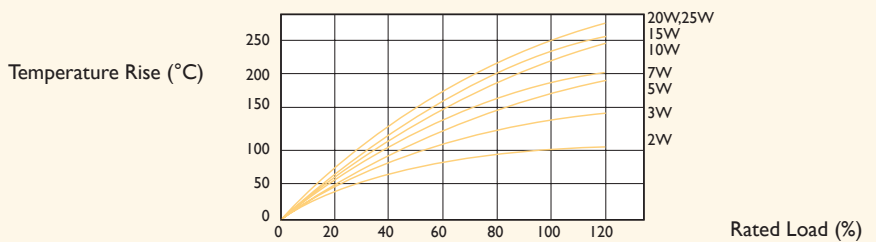
FEATURES

Power Rating	2W, 3W, 5W, 7W, 10W, 15W, 20W, 25W
Resistance Tolerance	±5%
T.C.R.	±300ppm/°C

DERATING CURVE

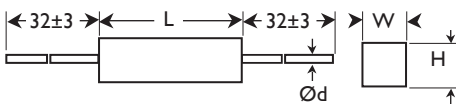


TEMPERATURE RISE



DIMENSIONS

Unit : mm



STYLE		DIMENSION			
Normal	Non-Ind.	L	W	H	Ød
SQP200	NSP200	18±1.0	7.0±1.0	7.0±1.0	0.8±0.05
SQP300	NSP300	22±1.5	8.0±1.0	8.0±1.0	0.8±0.05
SQP500	NSP500	22±1.5	9.5±1.0	9.0±1.0	0.8±0.05
SQP700	NSP700	35±1.5	9.5±1.0	9.0±1.0	0.8±0.05
SQP10A	NSP10A	48±1.5	9.5±1.0	9.0±1.0	0.8±0.05
SQP15A	NSP15A	48±1.5	12.5±1.0	12.5±1.0	0.8±0.05
SQP20A	NSP20A	60±2.0	12.5±1.0	12.5±1.0	0.8±0.05
SQP25A	NSP25A	60±2.0	14.0±1.5	13.0±1.5	0.8±0.05

ELECTRICAL CHARACTERISTICS

STYLE	SQP200	SQP300	SQP500	SQP700	SQP10A	SQP15A	SQP20A	SQP25A
Power Rating at 70 °C	2W	3W	5W	7W	10W	15W	20W	25W
Maximum Working Voltage	250V	350V		500V				
Maximum Overload Voltage	500V	700V		1000V				
Dielectric Withstanding Voltage	500V	700V		1000V				
Resistance range (Wirewound)	0.1 Ω ~36 Ω	0.18 Ω ~180 Ω		0.39 Ω ~430 Ω	0.62 Ω ~620 Ω	0.82 Ω ~820 Ω	1 Ω ~1K Ω	1.2 Ω ~1K5 Ω
Resistance range (Metal Oxide Film)	39 Ω ~47K Ω	100 Ω ~100K Ω	100 Ω ~200K Ω		100 Ω ~100K Ω			
Operating Temp. Range	- 55°C to + 155°C							
Temperature Coefficient	±300ppm/°C							

* Below or over this resistance range on request.

* Non-Inductive type up to 50Ω only.

ENVIRONMENTAL CHARACTERISTICS

PERFORMANCE TEST	TEST METHOD		APPRAISE
Short Time Overload	JIS-C-5202 5.5	2.5 Times RCWV for 5 Seconds	±(2%+0.05 Ω)
Dielectric Withstanding Voltage	JIS-C-5202 5.7	in V-Block for 60 Seconds	by Type
Temperature Coefficient	JIS-C-5202 5.2	-55°C to +155°C	by Type
Insulation Resistance	JIS-C-5202 5.6	in V-Block	> 100M Ω
Solderability	JIS-C-5202 6.5	260°C±5°C for 5±0.5 Seconds	95% Min. Coverage
Resistance to Solvent	JIS-C-5202 6.9	IPA for 1 Min. with Ultrasonic	No Deterioration of Coatings and Markings
Terminal Strength	JIS-C-5202 6.1	Direct load for 10 Sec. In the Direction of the Terminal Leads	≥2.5kg (24.5N)
Pulse Overload	JIS-C-5202 5.8	4 Times RCWV 10000 Cycles (1 Sec. on , 25 Sec. off)	±2.0%+0.05 Ω
Load Life in Humidity	JIS-C-5202 7.9	40±2°C, 90~95% RH at RCWV for 1000 Hrs. (1.5 Hrs. on , 0.5 Hrs. off)	±5%+0.05 Ω
Load Life	JIS-C-5202 7.10	70°C at RCWV for 1000 Hrs. (1.5 Hrs. on , 0.5 Hrs. off)	±5%+0.05 Ω
Temperature Cycling	JIS-C-5202 7.4	-55°C→Room Temp.→+155°C→Room Temp. for 5 Cycles	±2.0%+0.05 Ω
Resistance to Soldering Heat	JIS-C-5202 6.4	350°C±10°C for 3±0.5 Seconds	±1.0%+0.05 Ω

* Rated Continuous Working Voltage (RCWV)= $\sqrt{\text{Power Rating} \times \text{Resistance Value}}$