

Cement Resistors

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

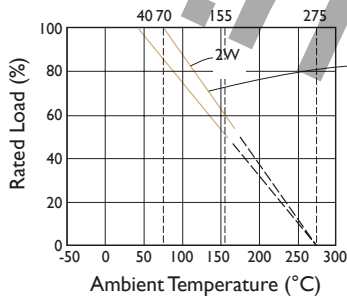
Space Saving Stand-Off Type

Small Size, High Power Capacity

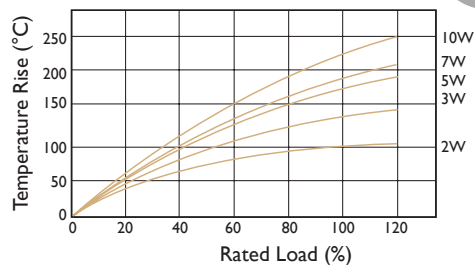
Resistance Tolerance: $\pm 5\%$

Completely Unflamable

DERATING CURVE

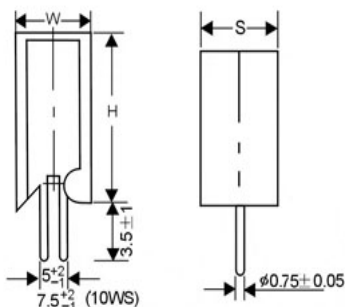


TEMPERATURE RISE



DIMENSIONS

Unit : mm



STYLE	Non-Ind.	DIMENSION		
		H	W	S
SQM200	NSM200	20 \pm 1.5	11.0 \pm 1.0	7.0 \pm 1.0
SQM300	NSM300	25 \pm 1.5	12.0 \pm 1.0	8.0 \pm 1.0
SQM500	NSM500	25 \pm 1.5	13.0 \pm 1.0	9.0 \pm 1.0
SQM700	NSM700	39 \pm 1.5	13.0 \pm 1.0	9.0 \pm 1.0
SQM10A	NSM10A	51 \pm 1.5	13.0 \pm 1.0	9.0 \pm 1.0
SQM10S	NSM10S	35 \pm 1.5	16.0 \pm 1.0	12.0 \pm 1.0

ELECTRICAL CHARACTERISTICS

STYLE	SQM200	SQM300	SQM500	SQM700	SQM10A	SQM10S
Power Rating	2W	3W	5W	7W	10W	
Operating Temp. Range	-55°C to +155°C					
Maximum Working Voltage	250V	350V	350V	500V	500V	500V
Maximum Overload Voltage	500V	700V	700V	1000V	1000V	1000V
Dielectric Withstanding Voltage	500V	700V	700V	1000V	1000V	1000V
Value Range ±5% (Ceramic Core)	0.15Ω~100Ω	0.24Ω~120Ω	0.3Ω~180Ω	0.51Ω~220Ω	1Ω~270Ω	
Value Range ±5% (Metal Oxide Film)	110Ω~10KΩ	130Ω~22KΩ	200Ω~33KΩ	240Ω~10KΩ	300Ω~10KΩ	
Temperature Coefficient	±300ppm/°C					

* I. Standard resistance is as the above list, below or over this resistance on request.

ENVIRONMENTAL CHARACTERISTICS

PERFORMANCE TEST	TEST METHOD		APPRAISE
Short Time Overload	JIS-C-5202 5.5	2.5 Times RCWV for 5 Seconds	±(2%+0.05Ω)
Dielectric Withstanding Voltage	JIS-C-5202 5.7	in V-Block for 60 Seconds	by Type
Temperature Coefficient of Resistance	JIS-C-5202 5.2	-55°C to +155°C	±300ppm/°C
Insulation Resistance	JIS-C-5202 5.6	in V-Block	>100MΩ
Solderability	JIS-C-5202 6.5	235±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	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%+0.05Ω)
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%+0.05Ω)
Load Life	JIS-C-5202 7.10	70°C at RCWV for 1000 Hrs. (1.5 Hrs. on , 0.5 Hrs. off)	±(5%+0.05Ω)
Temperature Cycling	JIS-C-5202 7.4	-55°C→Room Temp.→+155°C→Room Temp. for 5 Cycles	±(2%+0.05Ω)
Resistance to Soldering Heat	JIS-C-5202 6.4	350°C±10°C for 3±0.5 Seconds	±(1%+0.05Ω)

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