

# Cement Resistors

# RADIAL TERMINALS TYPE

Standard Style [ SQZ Series ]

Non-Inductive Style [ NSZ 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

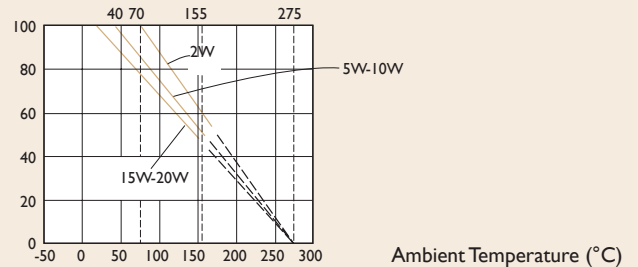
Space Saving Stand-Off Type

Resistance Tolerance:  $\pm 5\%$

Completely Unflamable

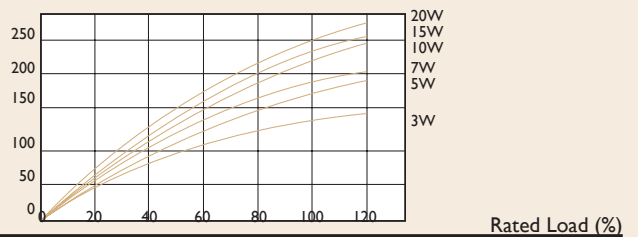
## DERATING CURVE

Rated Load (%)

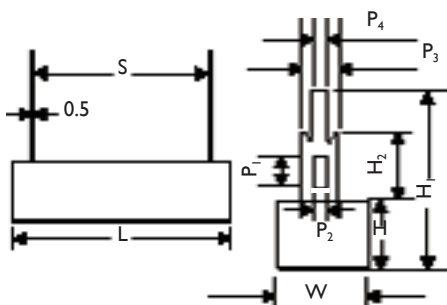


## TEMPERATURE RISE

Temperature Rise (°C)



## DIMENSIONS



STYLE		DIMENSION									
STD	Non-Ind.	L	H	W	S	H <sub>1</sub>	H <sub>2</sub>	P <sub>1</sub>	P <sub>2</sub>	P <sub>3</sub>	P <sub>4</sub>
SQZ300	NSZ300	24.0±1.5	9.0±1	9.0±1	12.5±1	24.0±1	9.5±1.0	4.0±0.2	2.0±0.2	5.0±0.2	1.4±0.1
SQZ500	NSZ500	27.0±1.5	9.5±1	9.5±1	15.0±1	24.0±1	9.5±1.0	4.0±0.2	2.0±0.2	5.0±0.2	1.4±0.1
SQZ700	NSZ700	35.0±1.5	9.5±1	9.5±1	22.5±1	24.0±1	9.5±1.0	4.0±0.2	2.0±0.2	5.0±0.2	1.4±0.1
SQZ10A	NSZ10A	48.0±1.5	9.5±1	9.5±1	32.5±1	24.0±1	9.5±1.0	4.0±0.2	2.0±0.2	5.0±0.2	1.4±0.1
SQZ15A	NSZ15A	48.0±1.5	12.5±1	12.5±1	32.5±1	34.5±1	15.0±1.5	7.0±0.2	6.0±0.2	10.0±0.2	2.7±0.1
SQZ20A	NSZ20A	63.5±2.0	12.5±1	12.5±1	42.5±1	34.5±1	15.0±1.5	7.0±0.2	6.0±0.2	10.0±0.2	2.7±0.1

Unit : mm



Note :

## ELECTRICAL CHARACTERISTICS

STYLE	SQZ300	SQZ500	SQZ700	SQZ10A	SQZ15A	SQZ20A
Power Rating	3W	5W	7W	10W	15W	20W
Operating Temp. Range	-55°C to +155°C					
Maximum Working Voltage	250V	350V	500V	500V	500V	500V
Maximum Overload Voltage	500V	700V	1000V	1000V	1000V	1000V
Dielectric Withstanding Voltage	500V	700V	1000V	1000V	1000V	1000V
Value Range ±5% (Ceramic Core)	0.22Ω~120Ω	0.47Ω~180Ω	0.68Ω~220Ω	1Ω~270Ω		
Value Range ±5% (Metal Oxide Film)	130Ω~22KΩ	200Ω~33KΩ	240Ω~10KΩ	300Ω~10KΩ		
Temperature Coefficient	±300ppm/°C					

\* 1. Standard resistance is as the above list, below or over this resistance on request.

\* 2. 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%+0.05Ω)
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)= $\sqrt{\text{Power Rating} \times \text{Resistance Value}}$