



AN ISO 9001: 2008 CERTIFIED MANUFACTURER
AN OHSAS 18001: 2007 MANUFACTURER
AN ISO 14001: 2004 MANUFACTURER



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DATA SHEET

Name of Product : CEMENT TYPE RESISTOR SQP)

Sales Executive : _____

Date : 19/7/2016

Prepared by	Inspected by	Audited by	Authorized by
customer approval	customer approval	customer approval	customer approval

Spec.No.:SQP2016

Rev.Date: 19.Jul.2016

PRODUCT : CEMENT TYPE RESISTOR

TYPE : SQP-2W/3W/5W/7W/10W/15W/20W

1. APPLICABLE SCOPE :

1.1 This specification is for use in CEMENT TYPE RESISTOR

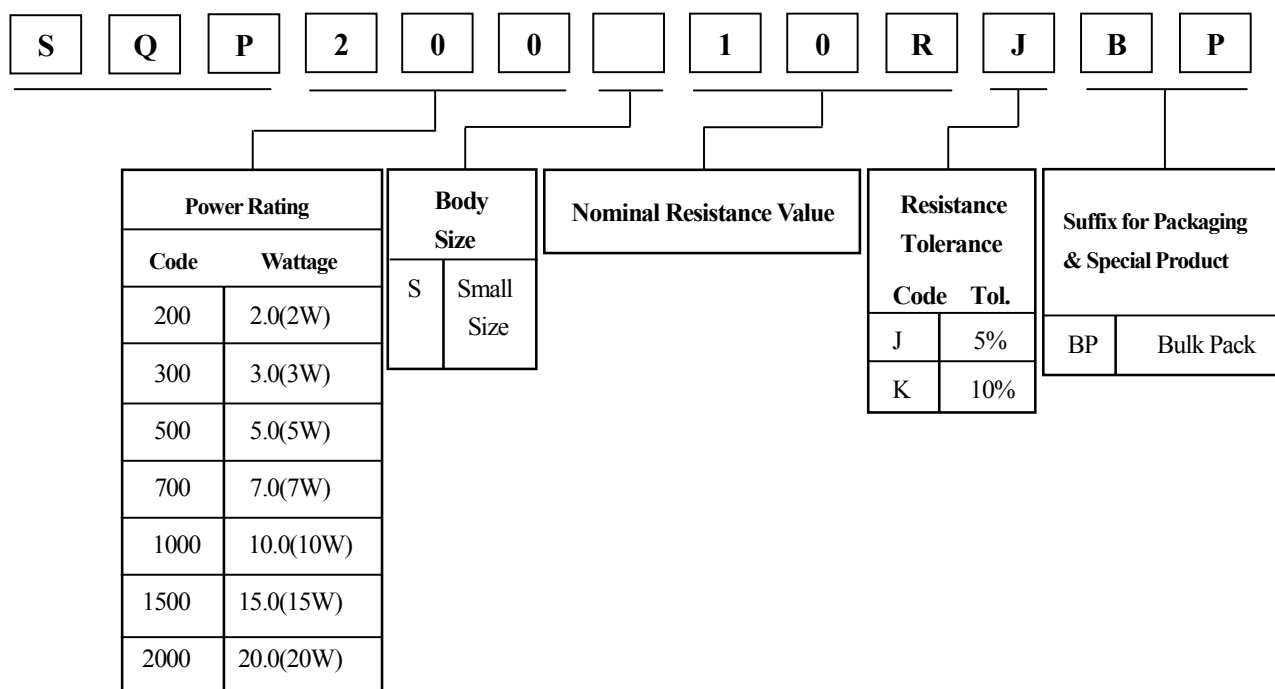
1.2 Characteristics and Specifications are according to those of :

- MIL-STD-105
- MIL-STD-202
- JIS C 5202
- GB 5731-85
- IEC 115-2-1-1982
- QC 400101

2. TYPE

It is composed of description , rated wattage , nominal resistance , tolerance and packaging.

2.1 Explanation of part numbers :



2.2 Example of expression :

Part Number

Description

SQP 200 10R JBP

Cement Type Resistor, 2W, 10 Ω , +/-5% tolerance , bulk pack.

Remarks: R= Ω

PRODUCT : CEMENT TYPE RESISTOR**TYPE : SQP-2W/3W/5W/7W/10W/15W/20W****3. SPECIFICATIONS**

TABLE - 1

DESCRIPTION	SQP200	SQP300	SQP 500	SQP700	SQP 1000	SQP 1500	SQP2000
POWER RATING AT 70°C	2W	3W	5W	7W	10W	15W	20W
OPERATING TEMP.RANGE	-40°C~+155°C	-40°C~+155°C	-40°C~+155°C	-40°C~+155°C	-40°C~+155°C	-40°C~+155°C	-40°C~+155°C
TEMPERATURE COEFFICIENT	±350PPM	±350PPM	±350PPM	±350PPM	±350PPM	±350PPM	±350PPM
INSULATION RESISTANCE	MIN. 20 MΩ	MIN. 20 MΩ	MIN. 20 MΩ	MIN. 20 MΩ	MIN. 20 MΩ	MIN. 20 MΩ	MIN. 20 MΩ
HUMIDITY	±(5%R+0.05Ω)	±(5%R+0.05Ω)	±(5%R+0.05Ω)	±(5%R+0.05Ω)	±(5%R+0.05Ω)	±(5%R+0.05Ω)	±(5%R+0.05Ω)
SHORT-TIME OVERLOAD	±(2.5%R+0.05Ω)	±(2.5%R+0.05Ω)	±(2.5%R+0.05Ω)	±(2.5%R+0.05Ω)	±(2.5%R+0.05Ω)	±(2.5%R+0.05Ω)	±(2.5%R+0.05Ω)
SOLDERABILITY	MIN.75% COVERED	MIN.75% COVERED	MIN.75% COVERED	MIN.75% COVERED	MIN.75% COVERED	MIN.75% COVERED	MIN.75% COVERED
LOAD LIFE	±(5%R+0.1Ω)	±(5%R+0.1Ω)	±(5%R+0.1Ω)	±(5%R+0.1Ω)	±(5%R+0.1Ω)	±(5%R+0.1Ω)	±(5%R+0.1Ω)
FLAME RETARDANT	NO FLAMING	NO FLAMING	NO FLAMING	NO FLAMING	NO FLAMING	NO FLAMING	NO FLAMING

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4. CHARACTERISTICS :

TABLE – 2

DC RESISTANCE VALUE	TEST METHOD MIL-STD-202 ITEM 303	TEMPERATURE 25°C ± 2°C. AQL 0.25%.
SHORT TIME OVERLOAD	TEST METHOD JIS C 5202 ITEM 5.5	RATED VOLTAGE × 2.5 TIMES OR MAX. WORKING VOLTAGE × 2 TIMES. ABOVE TEST 5 SEC. THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN ±(2.5%R+0.05 Ω).
SOLDERABILITY OF TERMINAL	TEST METHOD MIL-STD-202 ITEM 210	260°C ± 5°C 10 ± 1 SEC. AFTER TESTING, LEAVE FOR 3 HOURS. THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN ±(1%R+0.05 Ω).
VIBRATION WITHSTAND	TEST METHOD MIL-STD-202 ITEM 204	X, Y, Z-EACH DIRECTION 2 HOURS. AMPLITUDE 0.75MM. RANGE : 10HZ ~ 500HZ. THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN ±(1%R+0.05 Ω).
LOAD LIFE	TEST METHOD MIL-STD-202 ITEM 108	70°C ± 2°C. 1000 HOURS RATED VOLTAGE (1.5 HOURS ON, 0.5 HOUR OFF). THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN ±(5%R+0.1 Ω).
RESISTANCE TEMPERATURE COEFFICIENT	TEST METHOD MIL-STD-202 ITEM 304	THE RESISTANCE VALUE CHANGE RATE SHALL BE AS TABLE – 3.
LOAD LIFE IN HUMIDITY	TEST METHOD MIL-STD-202 ITEM 103	THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN ±(5%R+0.05 Ω).

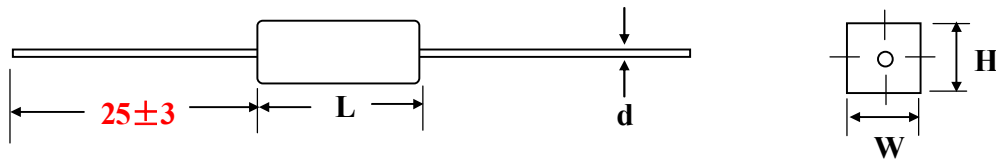
NOTE : RESISTORS SHALL BE EXAMINED FOR EVIDENCE OF NO MECHANICAL DAMAGE,
ARCING AND BREAKDOWN AFTER THE TEST.

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5. SQP TYPE DIMENSIONS :

TABLE - 3



Unit : mm

TYPE	W \pm 1	H \pm 1	L \pm 2	d \pm 0.05	RESISTANCE VALUE RANGE	
					WIREWOUND RODS	VALUE CUT RODS
SQP200	7	7	18	0.65	0.1 Ω - 82 Ω	
SQP300	8	8	22	0.70	0.1 Ω - 180 Ω	181 Ω - 33K Ω
SQP500	10	9	22	0.70	0.1 Ω - 180 Ω	181 Ω - 50K Ω
SQP700	10	9	35	0.70	0.1 Ω - 430 Ω	431 Ω - 50K Ω
SQP1000	10	9	48	0.70	0.1 Ω - 470 Ω	471 Ω - 100K Ω
SQP1500	12.5	11.5	48	0.70	0.5 Ω - 600 Ω	601 Ω - 150K Ω
SQP2000	14	12.5	60	0.70	0.5 Ω - 1K	1K1- 150K Ω

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6. LOT NO. (Coding System)