

PRODUCT : CEMENT TYPE RESISTOR

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

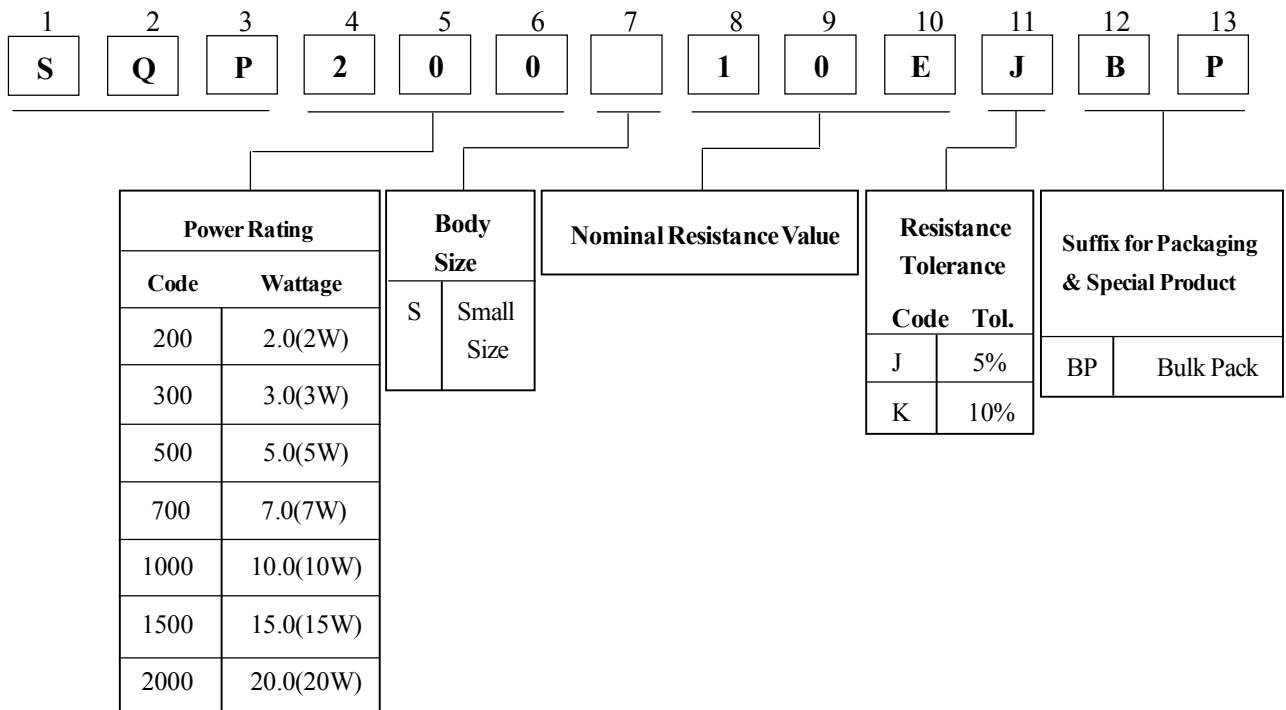
1. APPLICABLE SCOPE :

- 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 :

Miniature type (small size) is available.

Part Number

Description

SQP 200 10E J BP

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

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3. SPECIFICATIONS

TABLE - 1

DESCRIPTION 内容	WBA200	WBA300	WBA500	WBA700	WBA1000	WBA1500	WBA2000
POWER RATING AT 70°C 額定功率(70°C)	2W	3W	5W	7W	10W	15W	20W
OPERATING TEMP.RANGE 使用溫度範圍	-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 溫度特性	±350PPM	±350PPM	±350PPM	±350PPM	±350PPM	±350PPM	±350PPM
INSULATION RESISTANCE 絕緣電阻	MIN. 20 MΩ	MIN. 20 MΩ	MIN. 20 MΩ	MIN. 20 MΩ	MIN. 20 MΩ	MIN. 20 MΩ	MIN. 20 MΩ
HUMIDITY 耐濕負荷壽命	±(5%R+0.05 Ω)	±(5%R+0.05 Ω)	±(5%R+0.05 Ω)	±(5%R+0.05 Ω)	±(5%R+0.05 Ω)	±(5%R+0.05 Ω)	±(5%R+0.05 Ω)
SHORT-TIME OVERLOAD 短時間過負荷	±(2.5%R+0.05 Ω)	±(2.5%R+0.05 Ω)	±(2.5%R+0.05 Ω)	±(2.5%R+0.05 Ω)	±(2.5%R+0.05 Ω)	±(2.5%R+0.05 Ω)	±(2.5%R+0.05 Ω)
SOLDERABILITY 焊錫性	MIN.75% COVERED	MIN.75% COVERED	MIN.75% COVERED	MIN.75% COVERED	MIN.75% COVERED	MIN.75% COVERED	MIN.75% COVERED
LOAD LIFE 負載壽命	±(5%R+0.1 Ω)	±(5%R+0.1 Ω)	±(5%R+0.1 Ω)	±(5%R+0.1 Ω)	±(5%R+0.1 Ω)	±(5%R+0.1 Ω)	±(5%R+0.1 Ω)
FLAME RETARDANT 不燃性	NO FLAMING	NO FLAMING	NO FLAMING	NO FLAMING	NO FLAMING	NO FLAMING	NO FLAMING

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4. CHARACTERISTICS :

TABLE - 2

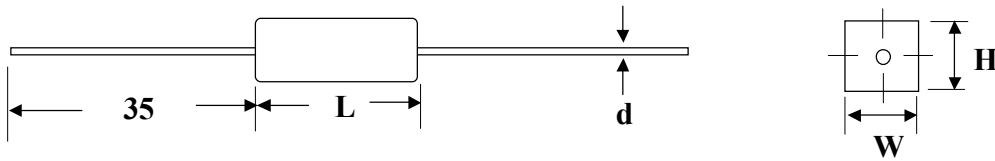
DC RESISTANCE VALUE	TEST METHOD MIL-STD-202 ITEM 303	TEMPERATURE $25^{\circ}\text{C} \pm 2^{\circ}\text{C}$. AQL 0.25%.
SHORT TIME OVERLOAD	TEST METHOD JIS C 5202 ITEM 5.5	RATED VOLTAGE $\times 2.5$ TIMES OR MAX.WORKINGVOLTAGE $\times 2$ TIMES. ABOVE TEST 5 SEC. THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN $\pm(2.5\%R+0.05\ \Omega)$.
SOLDERABILITY OF TERMINAL	TEST METHOD MIL-STD-202 ITEM 210	$260^{\circ}\text{C} \pm 5^{\circ}\text{C}$ 10 \pm 1SEC. AFTER TESTING, LEAVE FOR 3 HOURS. THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN $\pm(1\%R+0.05\ \Omega)$.
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 $\pm(1\%R+0.05\ \Omega)$.
LOAD LIFE	TEST METHOD MIL-STD-202 ITEM 108	$70^{\circ}\text{C} \pm 2^{\circ}\text{C}$. 1000 HOURS RATED VOLTAGE (1.5 HOURS ON, 0.5 HOUR OFF) THE RESISTANCE VALUE CHANGE RATE SHALL BE WITHIN $\pm(5\%R+0.1\ \Omega)$.
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 $\pm(5\%R+0.05\ \Omega)$.

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

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5. SQP TYPE DIMENSIONS :

TABLE - 3



Unit : mm

TYPE	W \pm 1	H \pm 1	L \pm 1	d \pm 0.05	RESISTANCE VALUE RANGE 阻值範圍	
					WIREWOUND RODS	VALUE CUT RODS
SQP200	7	7	18	0.60	0.1 Ω - 50 Ω	51 Ω - 24K Ω
SQP300	8	8	22	0.78	0.1 Ω - 50 Ω	51 Ω - 33K Ω
SQP500	10	9	22	0.78	0.1 Ω - 50 Ω	51 Ω - 50K Ω
SQP700	10	9	35	0.78	0.1 Ω - 50 Ω	51 Ω - 50K Ω
SQP1000	10	9	48	0.78	0.1 Ω - 50 Ω	51 Ω - 50K Ω
SQP1500	13	12	48	0.78	1 Ω - 200 Ω	201 Ω - 150K Ω
SQP2000	12.5/14	12.5/13	63/60	0.78	1 Ω - 200 Ω	201 Ω - 150K Ω