

承 认 书  
**Approval Sheet for**  
水泥电阻器  
**Cement Resistors**



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# 目 录

## Contents

1、承认页 Approval Page.....	1
2、品名标识、特点、结构图 Product Marking, Features, Construction.....	2
3、外形尺寸、性能 Dimensions, Characteristics.....	3
4、性能测试方法 Performance Test Methods.....	4~5
5、包装方式 Packing.....	6

# 制程说明书

## Specifications sheets for products

**IBS Technology Int'l HK Ltd**

二〇一八年四月二十五日

25-Apr-18

谨提出电阻器之承认书, 恭请检讨提出, 并惠以承认为禱.

We prudently put forward our resistors' booklet of acknowledgement for your inspection & discussion, and your kind acknowledgement.

接受栏

**Receipt column**

承认规格 Specifications :

RX5W ± 5%

M

系列

接受 Receipt		审核 checked		发行 Issued	
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承 认  
Acknowledged by



审 核  
checked



批 准  
Approve



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# RX

## CEMENT TYPE RESISTORS

### 水泥型电阻器

水泥型电阻器

CEMENT (5W)

CEMENT TYPE RESISTORS

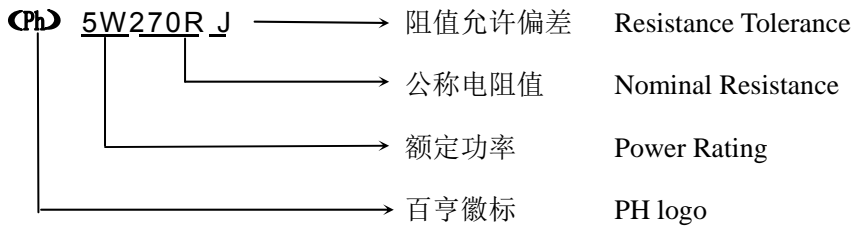
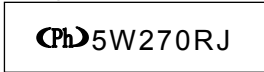
STANDARD TYPE (5W)

#### 品名标识 PRODUCT MARKING:

(在水泥电阻瓷壳正面标注百亨徽标、功率、阻值、精度)

At the marks of PH logo in cement resistance porcelain shell face and kind, power, resistance, precision.

e. g.



注：J 表示精度  $\pm 5\%$ 。

Note: The J shows that precision  $\pm 5\%$ .

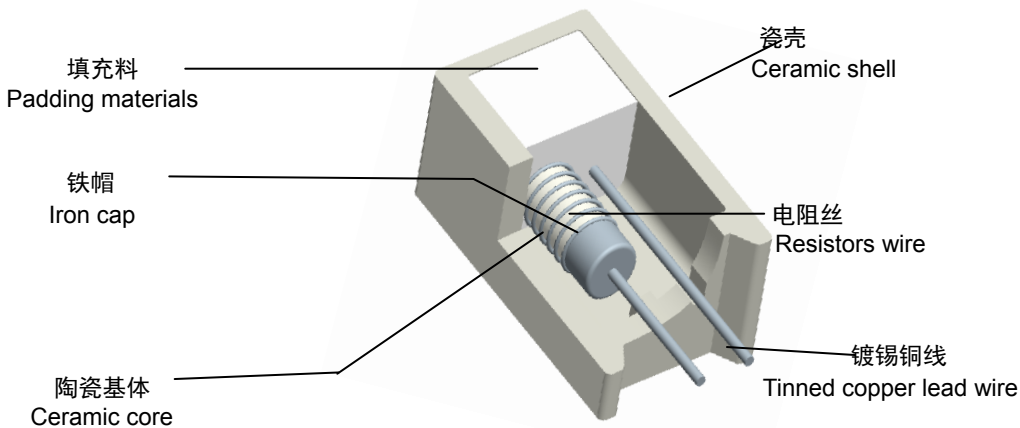
#### ● FEATURES

- ◎ LOW NOISE.
- ◎ INSULATION IS GOOD TO BE USED IN P.C.B.
- ◎ INSTANT OVERLOAD CAPABILITY; WITHOUT ANNUAL SHIFT ON RESISTANCE VALUE.
- ◎ SUPER HEAT DISSIPATION; SMALL LINEAR TEMPERATURE COEFFICIENT.

#### ● 特点

- ◎ 杂音低。
- ◎ 使用于电路板绝缘度好。
- ◎ 耐短时间过负载, 阻值长时间无变化。
- ◎ 耐热性优, 电阻温度系数呈直线变化。

#### ● CONSTRUCTION 结构图



水泥电阻  
CEMENT TYPE

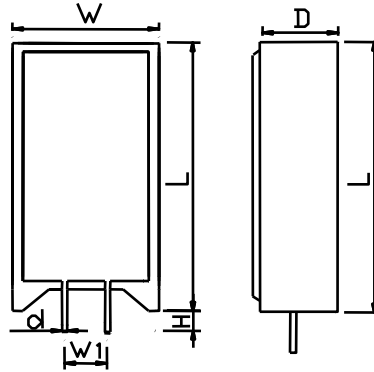
# RX

## CEMENT TYPE RESISTORS

## 水泥型电阻器

### 外形尺寸 DIMENSIONS

M 型 (M TYPE):

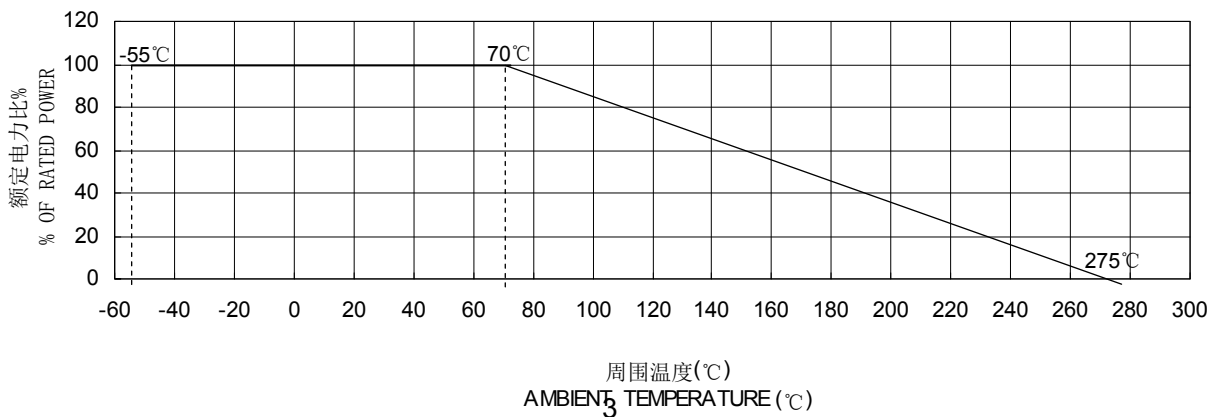


品名 PART NO	尺寸 (MM) DIMENSIONS (MM)						RESISTANCE RANGE(Ω)
	W±1	D±1	L±1.5	H±1	W1±1	d±0.05	
5W	13	10	25.5	4	5	0.78	0.01~3K3

### 性能 PERFORMANCE:

项目 ITEM	额定功率 POWER RATED	5W
最高使用电压 MAX WORKING VOLTAGE		$\sqrt{PR}$ 或 350V 取较小者 $\sqrt{PR}$ Or 350V Get the lower voltage
最高过负荷电压 MAX OVERLOAD VOLTAGE		$\sqrt{10PR}$ 或 600V 取较小者 $\sqrt{10PR}$ Or 600V Get the lower voltage
耐电压 DIELECTRIC WITHSTANDING VOLTAGE		1000V (AC)
阻抗误差值 RESISTANCE TOLERANCE		J±5%

负载轻减曲线 POWER DERATING CURVE



# RX

## CEMENT TYPE RESISTORS

### 水泥型电阻器

#### 性能测试方法 PERFORMANCE TEST METHODS:

特性项目 CHARACTERISTICS	规格值 SPECIFICATIONS	测试方法 TEST METHODS															
直流阻抗值 DC RESISTANCE JIS-C-5202 5.1	J±5%	室温 25°C AT 25°C															
温度特性 TEMPERATURE COEFFICIENT JIS-C-5202 5.2	±300PPM/°C	$\frac{R2-R1}{R1(T2-T1)} \times 10^6(\text{PPM}/^\circ\text{C})$ R1:常温(T1)阻抗值 RESISTANCE VALUE AT ROOM TEMPERATURE(T1) R2:常温+100°C(T2)阻抗值 RESISTANCE VALUE AT ROOM TEMPERATURE +100°C(T2)															
耐电压 DIELECTRIC WITHSTANDING VOLTAGE JIS-C-5202 5.7	涂装不可烧损,绝缘不可破坏 NO EVIDENCE OF FLASHOVER MECHANICAL AMAGE,ARCING OR INSULATION BREAKDOWN.	电阻两端导线置于金属 V 型槽上依特性表之 电压规定印加 60 秒 RESISTORS SHALL BE CLAMPED IN THE TROUGH OF A 90° METALLIC V-BLOCK AND SHALL BE TESTED AT SPECIFIED IN THE ABOVE LIST FOR 60 SECONDS.															
绝缘阻抗 INSULATION RESISTANCE JIS-C-5202 5.6	1000MΩ MIN	以 DC 500V 测试待测体于 V 形槽上之导线及 其表面涂装印加 60 秒 WITHSTANDING TEST AND SHALL BE MEASURED AT DC 500V. RESISTOR SHALL BE PREPARED AC SAME METHOD OF DIELECTRIC.															
温度循环 TEMPERATURE CYCLING JIS-C-5202 7.4	$\Delta R \leq \pm(1\%R_0+0.05\Omega)$	依下表所规定之温度连续 5 次 FIVE TIMES ON THE TEMPERATURE AS THE TABLE. <table border="1"><thead><tr><th>步骤 STEP</th><th>温度 TEMPERATURE</th><th>放置时间 TIME(MIN)</th></tr></thead><tbody><tr><td>1</td><td>-25°C±3°C</td><td>30</td></tr><tr><td>2</td><td>ROOM TEMP</td><td>10-15</td></tr><tr><td>3</td><td>155°C±2°C</td><td>30</td></tr><tr><td>4</td><td>ROOM TEMP</td><td>10-15</td></tr></tbody></table>	步骤 STEP	温度 TEMPERATURE	放置时间 TIME(MIN)	1	-25°C±3°C	30	2	ROOM TEMP	10-15	3	155°C±2°C	30	4	ROOM TEMP	10-15
步骤 STEP	温度 TEMPERATURE	放置时间 TIME(MIN)															
1	-25°C±3°C	30															
2	ROOM TEMP	10-15															
3	155°C±2°C	30															
4	ROOM TEMP	10-15															
耐湿性 HUMIDITY JIS-C-5202 7.5	$\Delta R \leq \pm(5\%R_0+0.1\Omega)$	温度 40±2°C,相对湿度 90-95%于恒温恒湿箱 中不加电压,连续放置 1000 小时 TEMPERATURE RESISTANCE CHANGE AFTER A 1000 HOURS EXPOSURE IN A HUMIDITY TEST CHAMBER CON- TROLLED AT 40±2°C AND 90-95% RELATIVE HUMIDITY.															

# RX

## CEMENT TYPE RESISTORS

### 水泥型电阻器

特性项目 CHARACTERISTICS	规格值 SPECIFICATIONS	测试方法 TEST METHODS						
短时间过负荷 SHORT TIME OVERLOAD	$\Delta R \leq \pm(1\%R_0 + 0.05 \Omega)$	1~4W (U= $\sqrt{5PR}$ ) ,5~20W(U= $\sqrt{10PR}$ )或2倍元件极限电压(取较小者)测试 5 秒.1~4W (U= $\sqrt{5PR}$ ) ,5~20W(U= $\sqrt{10PR}$ ) OR 2 MAX VOLTAGE (CHOOSE THE LOWER VOLTAGE)FOR 5 SECS.						
湿度寿命 LOAD LIFE IN HUMIDITY JIS-C-5202 7.9	$\Delta R \leq \pm(5\%R_0 + 0.1 \Omega)$	温度 40±2℃,相对湿度 90-95%于恒温箱中,加额定直流电压(U= $\sqrt{PR}$ )或元件极限电压(取较小者)测试 1.5 小时, 停止 0.5 小时连续 1000 小时.RESISTANCE CHANGE AFTER 1000 HOURS (1.5 HRS ON, 0.5 HRS OFF) AT RCWV(U= $\sqrt{PR}$ ) OR COMPONENT MAX VOLTAGE (CHOOSE THE LOWER VOLTAGE) IN A HUMIDITY CHAMBER CONTROLLED AT 40℃±2℃ AND 90-95% RELATIVE HUMIDITY.						
室温寿命 LOAD LIFE JIS-C-5202 7.10	$\Delta R \leq \pm(5\%R_0 + 0.1 \Omega)$	室温条件下,以额定电压(U= $\sqrt{PR}$ )或元件极限电压(取较小者)测试 1.5 小时,停止 0.5 小时测试 1000 小时.PERMANENT RESISTANCE CHANGEAFTER1000 HOURSOPERATING AT RCWV(U= $\sqrt{PR}$ ) OR COMPONENT MAX VOLTAGE CHOOSE THE LOWER VOLTAGE)WITH DUTY CYCLE OF 1.5 HOURS ON,0.5 HOURS OFF AT 25℃±2℃ .						
耐热性 RESISTANCE TO SOLDERING HEAT JIS-C-5202 6.4	$\Delta R \leq \pm(1\%R_0 + 0.05 \Omega)$	将电阻两端导线浸入锡炉约 3.2 到 4.8MM 依下表规定实施 .DIP THE LEADS OF THE RESISTOR INTO SN STOVE THE DEPTH IS 3.2~4.8MM, THE TEMPERATURE AND THE TIME AS THE TABLE. <table border="1"><thead><tr><th>TEMPERATURE</th><th>DIP TIME</th></tr></thead><tbody><tr><td>350℃±10℃</td><td>3.0±0.5 SEC</td></tr><tr><td>260℃±5℃</td><td>10±1 SEC</td></tr></tbody></table>	TEMPERATURE	DIP TIME	350℃±10℃	3.0±0.5 SEC	260℃±5℃	10±1 SEC
TEMPERATURE	DIP TIME							
350℃±10℃	3.0±0.5 SEC							
260℃±5℃	10±1 SEC							
焊锡性 SOLDERABILITY JIS-C-5202 6.5	焊锡覆盖面积 95%以上 95% COVERAGE MIN.	锡炉温度:260±5℃ 浸炉时间:2±0.5 SEC TEST TEMPERATURE OF SOLDER: 260±5℃ DWELL TIME IN SOLDER:2±0.5 SEC						
不燃性 NONINFLAMMABILITY	不可燃烧 NONINFLAMMABLE	分别按 5.10.16 倍额定功率加交流负荷 5 分钟 LOAD 5 MIN ACCORDING TO 5 TIME 10 TIME 16 TIME POWER RATED AND A.C						

# RX

## CEMENT TYPE RESISTORS

## 水泥型电阻器

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包装方式 PACKING:

型号 TYPE	数量 Q'TY(PCS)	功率 POWER  5W
M 型 M TYPE	单元包装数 CELL PACKING QTY	209
	整箱数 FULL BOX QTY	2090