Metal Plate Cement Resistor

1. Scope:

The specification applies on Metal Plate Cement Resistor.

2. Part Number:

Y C R	5 8	R * * *	*	*	*
①	②	③	④	⑤	⑥

① Type code

② Case dimension

③ Nominal resistance value 10㎜Ω → R010

④ Resistance tolerance J(5%), K(10%)

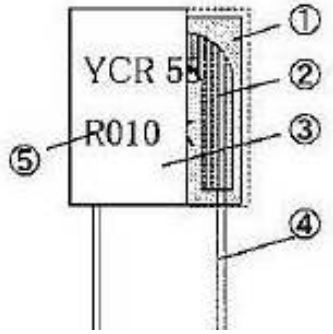
⑤ Package code B(Bulk),

⑥ Forming style P (refer to Fig-2), W (refer to Fig-3)

3. Structure:

Ni alloy foil resistive element sealed with non flame cement in ceramic package.

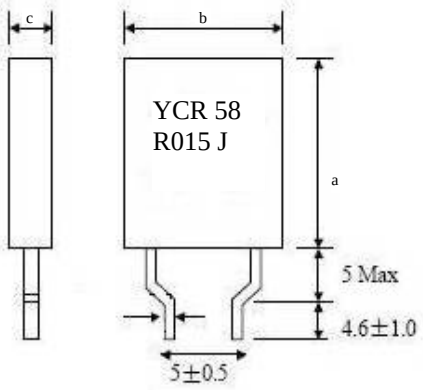
Figure - 1



Symbol	Designation	Material
①	Filler	Silicon
②	Resistive element	Metal foil
③	Case	Ceramic
④	Terminal	Copper wire
⑤	Marking	Ink

4. Dimension:

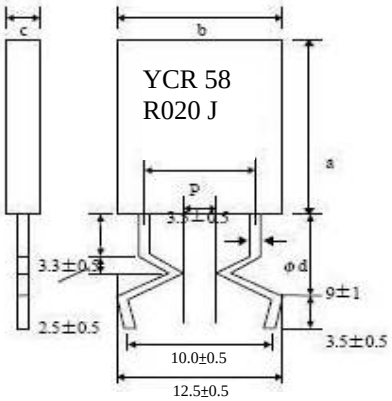
Figure – 2



Symbol	Dimension
a	18.0 ± 1.0
b	14.0 ± 1.0
c	5.0 ± 1.0
d	0.8 ± 0.1

(unit: mm)

Figure – 3



Symbol	Dimension
a	18.0±1.0
b	14.0±1.0
c	5.0±1.0
d	0.8±0.1

(unit: mm)

5. Resistance Measurement Point:

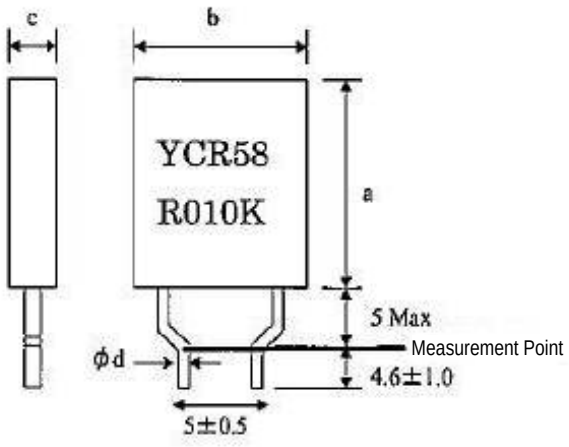


Figure – 4

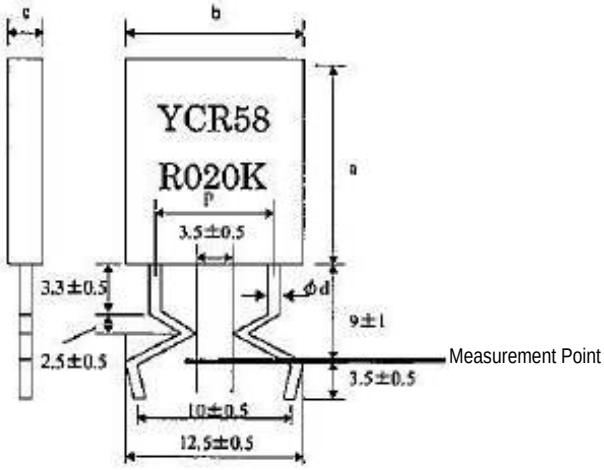
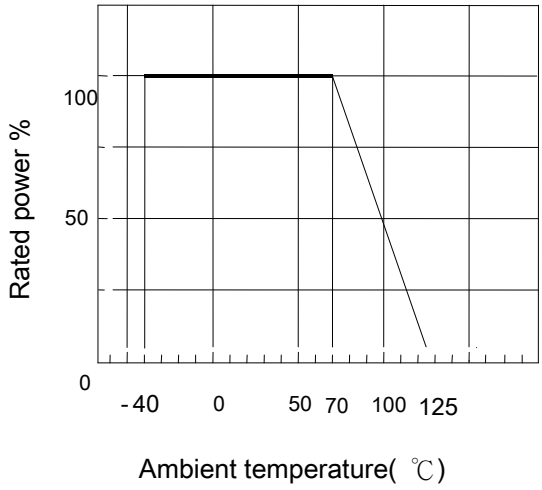


Figure – 5

6. Specification:

Parameter	Specification
Resistance	10mΩ, 15mΩ, 20mΩ, 30mΩ
Resistance Tolerance	±5% (J), ±10% (K)
Temperature Coefficient of Resistance	±100ppm/℃
Rated Load	5W (Derating curve as Figure-6)
Operating Temperature	-55℃ ~ 125℃
Rated Temperature	+70℃

Figure – 6



7. Performance:

Item	Condition	Specification
Short timer over load	2.5 times the rated voltage shall be applied for 5s	Resistance changed ≦ ±2%
Load Life	Rated power for 90min followed by a pause of 30min at a temperature of 70±3℃. Cycles shall be repeated for 1000h.	Resistance changed ≦ ±2%
Moisture load life	Rated voltage for 90min followed by a pause of 30min at a temperature of 60±2℃ with relative humidity of 90%. Cycles shall be repeated for 1000h.	Resistance changed ≦ ±5%
Temperature Cycle	[-40℃/30min → R.T. 3min → +125℃/30min → R.T. 3min] 300 continuous cycles.	Resistance changed ≦ ±2%
Soldering Heating	Dipped into solder for 10±1sec at 260±5℃	Resistance changed ≦ ±2%
Solderability	Dipped into solder for 3±0.5sec at 245±5℃	A new solder shall cover minimum of 90%