

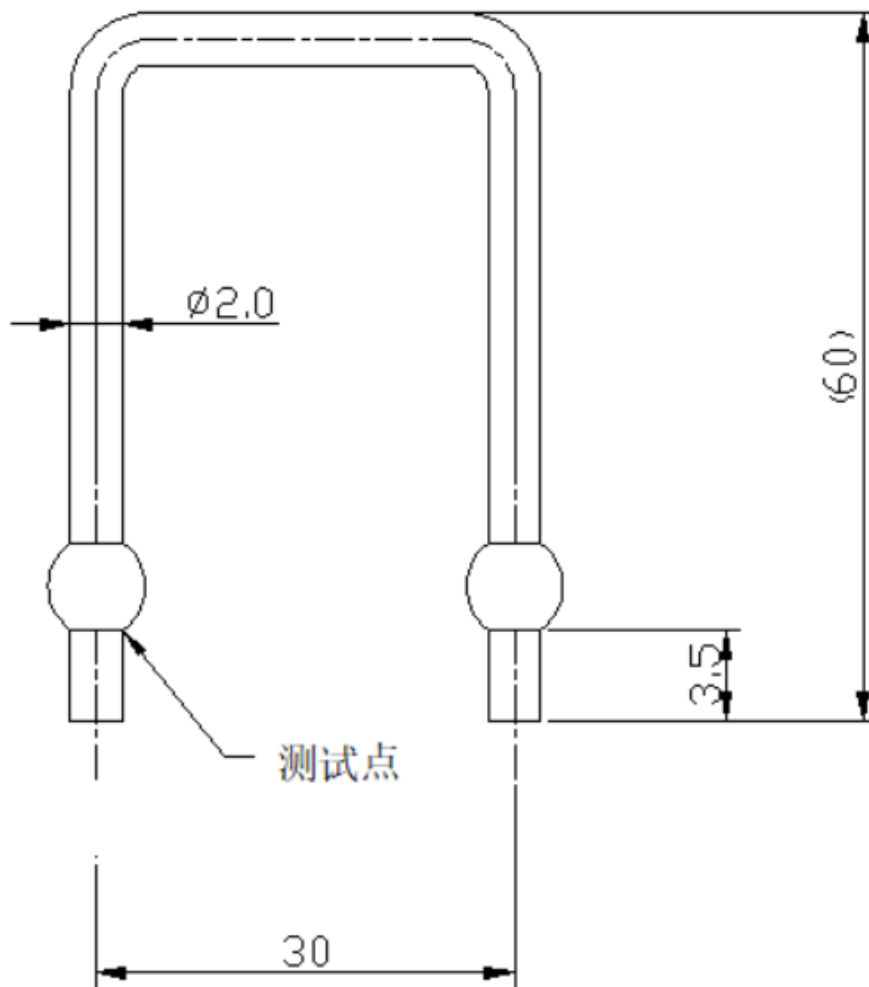
Constantan Resistor Specification

Product Name: Constantan Resistor (Door-shaped 門型)

Product No.: $\phi 2.0 * 30 / 22$ milliohm

Product size

元件尺寸(mm)



Electrical parameters

| ITEM | PARAMETER |
|-------------------|-----------|
| Resistance | 0.022 Oh |
| Rated Current | 20A(12A) |
| Power | 8.8W |
| Surface treatment | Nothing |
| Weldability | Good |

Constantan properties

| ITEM | Characteristic | | |
|-------------------------------------------------|-----------------|-----|-------|
| Brand Alloy Name | 6J40 | | |
| Composition % | Cu | Mn | Ni |
| | Allowance | 1-2 | 39-41 |
| Resistivity $\mu \Omega \cdot m$ | 0.48 ± 0.03 | | |
| PPM/ $^{\circ}C$ | ± 40 | | |
| EMF VS Cu(0-100 $^{\circ}C$) $\mu V/^{\circ}C$ | ≤ 45 | | |
| Density g/cm^3 | 8.9 | | |
| Melting Point $^{\circ}C$ | < 1260 | | |
| Tensile Strength Mpa | > 390 | | |
| Elongation L0=200mm | > 15 | | |
| Service Temperature | 0-500 | | |

Specification

| ITEM | Value | Test method (according to JIS C 5202) |
|-------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------|
| Short time load | Within $\pm 2\%$ | RCWV*2.5 or Max Overloading Voltage, 5 seconds |
| Terminal strength | No evidence of mechanical damage | 5Kg/10sec |
| Tin immersion test | Within $\pm 1\%$ | $350 \pm 10^\circ\text{C}$, $3.5 \pm 0.5\text{s}$ After test leave for 3h |
| Weldability test | Covered with new solder by 95% at least | $260 \pm 5^\circ\text{C}$, $10 \pm 0.5\text{seconds}$ |
| Temperature cycling test | Within $\pm 1\%$ | $-55 \sim 200^\circ\text{C}$ 100cycles |
| Moisture load resistance test | Within $\pm 5\%$ | $40 \pm 2^\circ\text{C}$, 90 to 95%RH, 1000h Rated voltage (90 min on, 30 min off) |
| Load life test | Within $\pm 5\%$ | $70 \pm 2^\circ\text{C}$, 1000h Rated voltage (90 min on, 30 min off) |

Purpose:

- ▶ Accuracy is required for current sampling within the range of $\pm 5\%$
- ▶ Feedback circuit
- ▶ Low inductance circuit
- ▶ High current pulse circuit

Packing

- ▶ In bulk, 500PCS per package