

Specifications

Product name: Power Thick Film Resistors

Type: RPVH120

Version: A/0

Date: 2022.09

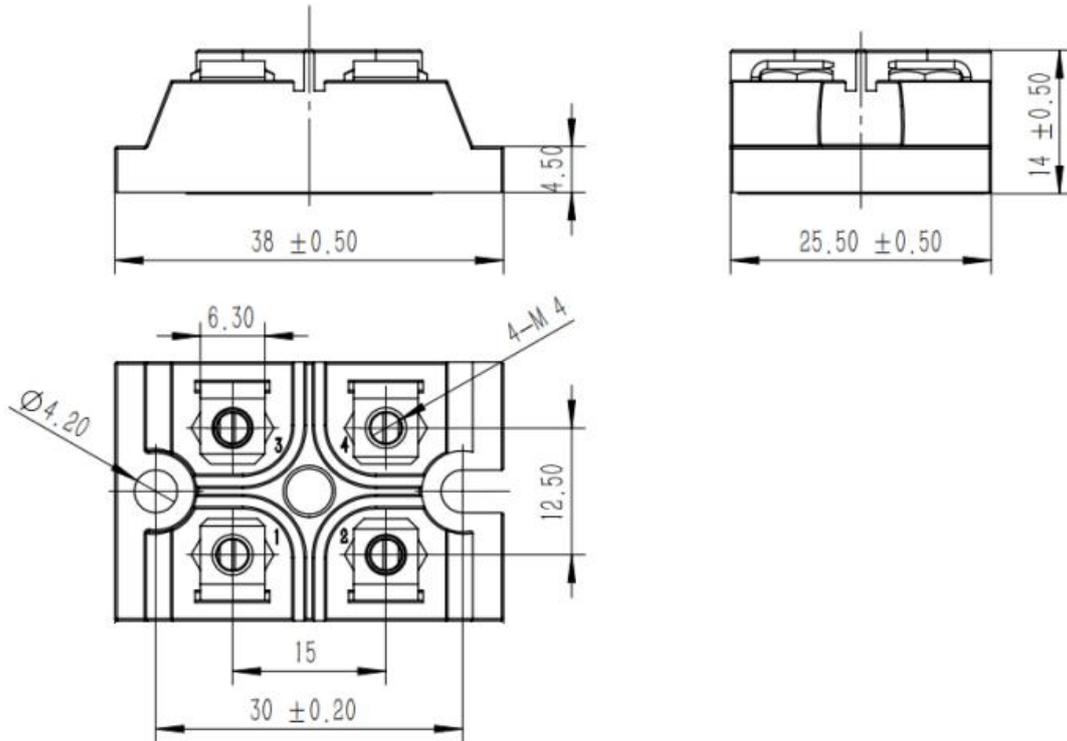
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| Date | 2022.09.27 | 2022.09.27 |



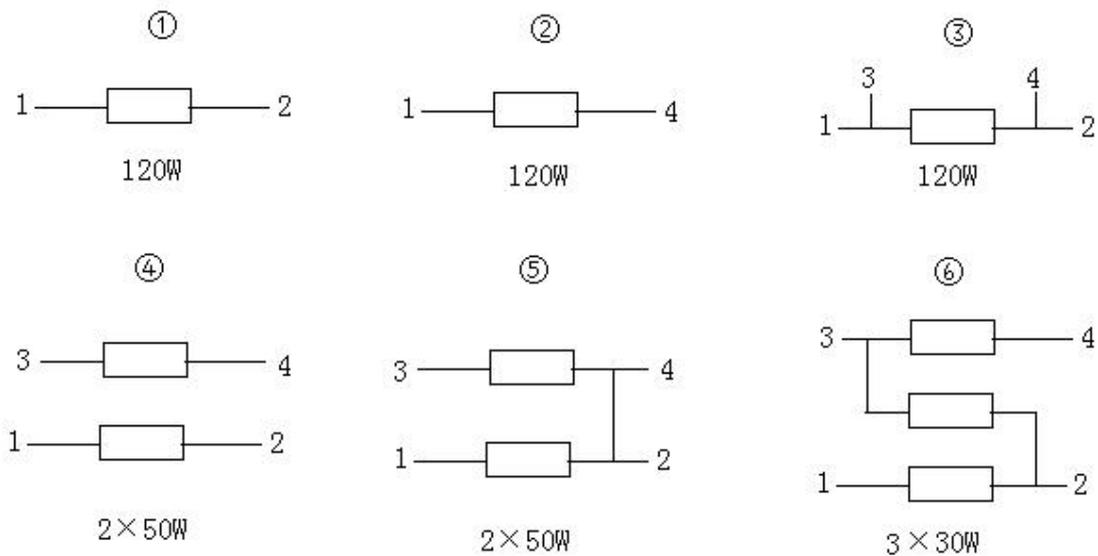
■ Scope:

This specification specifies the general characteristics and requirements for RPVH 120 power type thick film resistors.

■ Dimensions: Size name:mm Package type: SOT-227



■ Resistor structure:

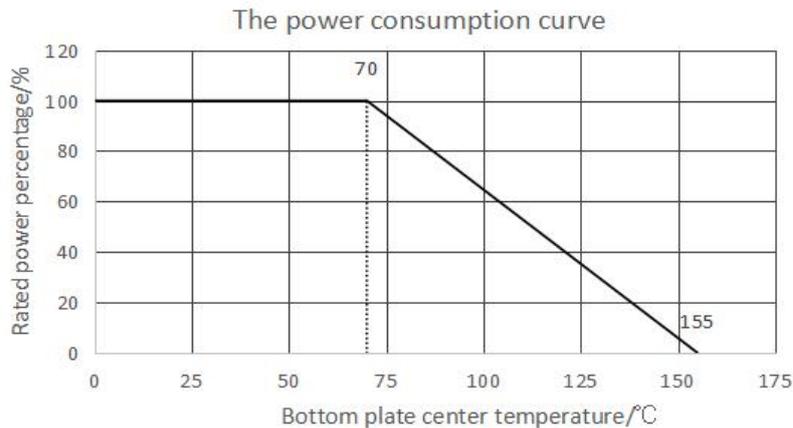


Reference Standard:

GB/T 5729-2003 Fixed Resistors for Electronic Equipment Part 1: General Specification

GB/T 2828.1-2012 Batch-by-batch inspection technical sampling procedure and sampling table

GB/T 2691-2016 Marking method of resistors and capacitors


The main technical parameters:

| | |
|------------------------------|--|
| Rated power | When the base plate temperature is $\leq 70^{\circ}\text{C}$, the rated power is 120W |
| Resistance / Ω | 1--1M |
| Allowable deviation | $\pm 5\%$ |
| Temperature Coefficient | $\pm 250\text{ppm}/^{\circ}\text{C}$ (25-85 $^{\circ}\text{C}$) |
| Maximum working voltage | 1500V DC |
| Insulation withstand voltage | 5KV DC 1min |
| Distributed capacitance | $< 45\text{pF}$ |
| Insulation resistance | $> 10\text{G}\Omega$ |
| Range of working temperature | -55°C - $+155^{\circ}\text{C}$ |

Main inspection items, inspection methods and performance requirements:

| project | Test conditions | Performance requirement |
|-----------------------------|---|--|
| Terminal strength | Soft lead pull: 10N, stud type 1.0N.m torque | $\Delta R \leq \pm (1\%R + 0.05\Omega)$ |
| high frequency vibration | Frequency 10~500Hz, 10g, 6h | $\Delta R \leq \pm (1\%R + 0.05\Omega)$ |
| overload | Apply 1.5 times the rated power voltage for 10s | $\Delta R \leq \pm (0.4\%R + 0.1\Omega)$ |
| Room temperature durability | The rated power load is 1000 h, and the bottom plate temperature is less than 70 $^{\circ}\text{C}$ | $\Delta R \leq \pm (5\%R + 0.05\Omega)$ |

■ Radiator installation method and requirements

The resistor is installed on the radiator with 2 M4 screws, and the installation torque is less than or equal to 1.3N.m (to ensure the use of power and excellent heat dissipation);

The contact surface must be cleaned;

The flatness of the radiator is: 0.05mm-0.1mm (within the range of 100mm);

The roughness of the radiator must be 6.3μm;

To improve thermal conductivity, contact surfaces (alumina, heat sinks) should be coated with silicone grease.

■ Order example

RPVH120/5-2×10K ±5%

