HXP200

Power Type Thick Film Non Inductive Resistor

Product Features

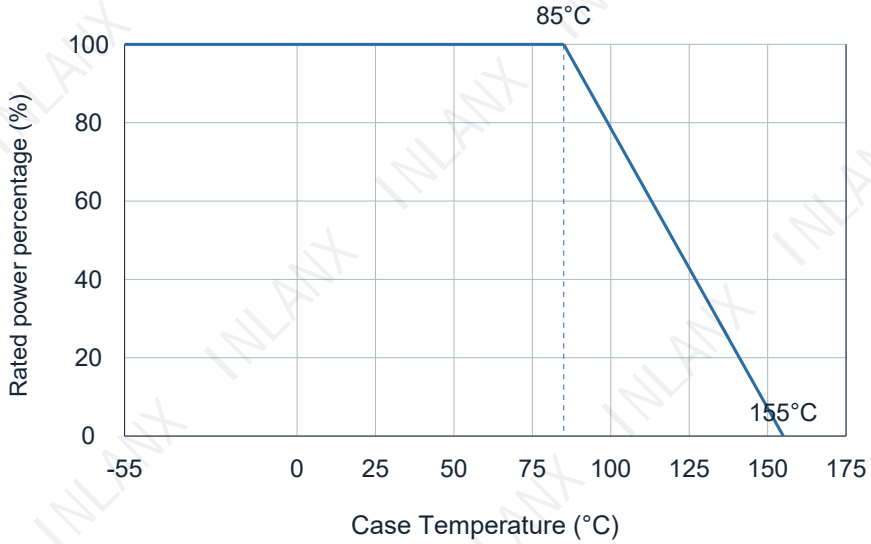
- Wide resistance range, small size, high power, good heat resistance
- It can be easily installed with 2 M4 screws.
- The height of the resistor is extremely low on the terminal surface, at 11.8mm, and the terminal is a copper plate bushing that can be directly installed with M4 screws.
- The standard quantity of terminals is 4, which can be changed to 2 or 3.
- SOT-227 standard packaging



Applications

Mainly used in variable speed drives, power supply, control equipment, communication, automatic control, engine control, etc. Suitable for inverter circuits, pulse circuits, and high-frequency circuits.

Power Derating Curve



Performance Parameters

Model	Rated power (W)	Resistance range	Resistance tolerance	Temperature coefficient (PPM/℃)	Maximum working voltage U max (V)	Withstanding voltage (KV/AC)
HXP200	200W	0.1Ω ~ 1MΩ	±1%、±2% ±5%、±10%	±50、±100、±250	500V	4

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Test Items & Performance

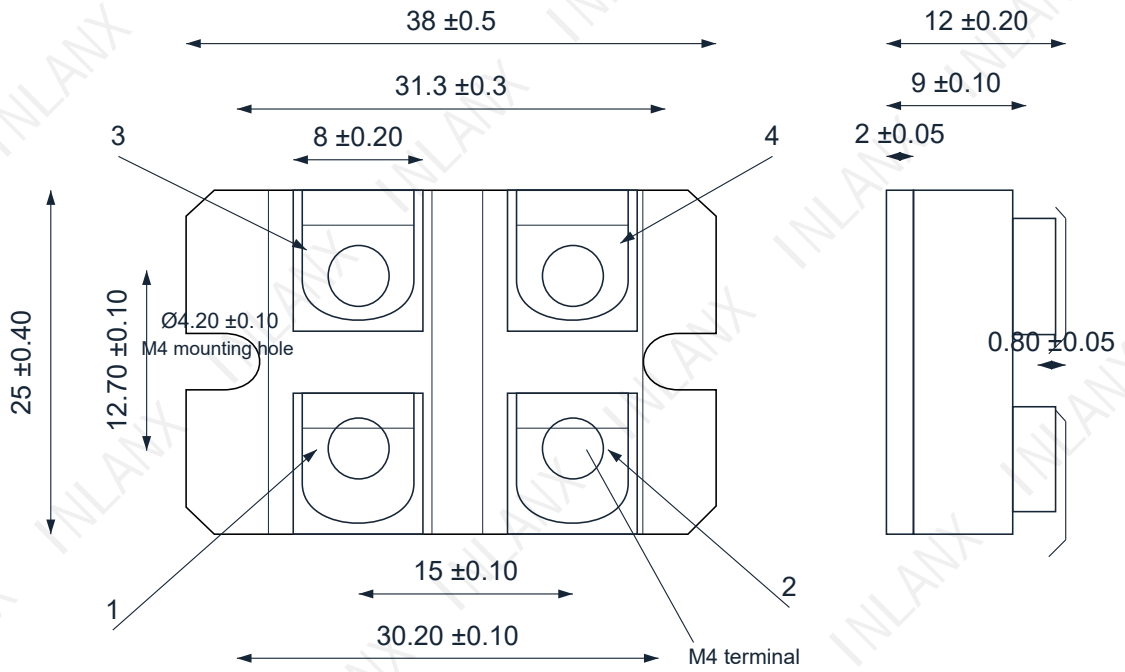
Test Items

Test items	Experimental conditions	Performance indicators
Rapid temperature changes	-55℃ to +155℃, after five cycles; Extreme temperature exposure time: 30 minutes; Conversion time: 1-2 minutes	The resistor should have no visible damage and clear markings, △R≤±(0.5%R+0.05Ω)
Temperature coefficient of resistance	-55℃ to +155℃	TCR within ±150X10-6/K
insulation resistance	Under normal weather conditions, test the insulation resistance between the metal heat dissipation plate of the resistor and the lead out terminal, with a test voltage (DC) of 500±5V	The insulation resistance should be ≥10GΩ
overload	Apply a DC voltage of twice the rated power (Us≤1.5Umax) for 5 seconds	The resistor should have no visible damage and clear markings, △R≤±(0.5%R+0.05Ω)
Damp heat steady state	Temperature: 40±2℃; Humidity of 95%; Time: 56 days	The resistor should have no visible damage and clear markings, △R≤±(0.5%R+0.05Ω)
life	Applied voltage: rated power DC voltage (UR≤U max), powered on for 1.5 hours, powered off for 0.5 hours, total duration 1000 hours	The resistor should have no visible damage and clear markings, △R≤±(0.5%R+0.05Ω)
withstanding voltage	Apply an effective AC voltage of 4000V for 1 minute ±5 seconds	The resistor has no breakdown or arcing phenomenon, and the leakage current is ≤10mA
vibrate	Conduct the test according to the requirements of GB/T2423.10-2019, with a vibration frequency of 10Hz, amplitude of 0.35mm, acceleration of 50m/s², 2 frequency scans in each direction, 3 directions, and a duration of 23 minutes in each direction	The plastic casing of the resistor should have no mechanical damage, and the resistance change should be within ±2%R+0.05Ω

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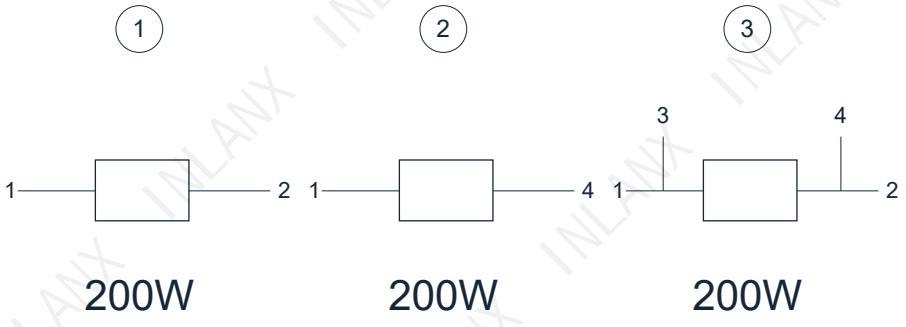
Dimensions, Circuit & Ordering

Dimensions (mm)



The lead out terminal in the lower left corner is the first lead out terminal, which rotates clockwise to become the second, third, and fourth lead out terminals, respectively

Circuit Structure Diagram



Ordering Example: HXP200-3-40RJ

HXP200	3	40R	J
Model	Circuit	Resistance	Accuracy F: ±1% G: ±2% J: ±5% K: ±10%

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Installation & Storage

Installation Instructions

• The resistor is installed on the heat sink with M4 screws, and the installation torque of the screws is 2N.m. It should be ensured that the product is installed firmly without shaking. In addition, screws should be equipped with anti loosening components such as flat washers, spring washers, anti loosening nuts, etc.

• M4 screws are used for the electrical installation of the resistor lead out end, with a torque of 1.3N.m. It should be ensured that the electrical connection is tight and there is no shaking. In addition, screws should be equipped with anti loosening components, such as flat washers, spring washers, etc., to prevent electrical connections from loosening due to vibration.

• A uniform layer of thermal grease should be applied between the resistor and the installation surface. It is recommended to use thermal grease products with a thermal conductivity of 1W/mK.

Storage

During storage, the product should be stored in a warehouse with an ambient temperature of -10℃ to +45℃, a relative humidity of no more than 85%, ventilation, dryness, and no acidic, alkaline, or other harmful substances around it