

# HIGH POWER CHIP RESISTOR RNP-45

Rated Power **45W**

**0.3 g** Light Weight

**1mm** Great Thinness



## Performance

Designed to replace TO252 (DPAK) packaged resistors, RNP-45 operates at 45 watts with this small and light weight structure. Good performance at thermal resistance that rates only 1.0 °C/W. Resistive is made of pulse resistant thick film that brings excellent high frequency property at 1.44 pF, 8.38 nH for the reactance. This small resistor has 1kW - 1us sufficiently high pulse resistant trait at wide range of operating temperature, -55°C ~ +175°C. The following functional design also aids the high performance.

- Multiple thermal layers including the metal header were removed to maximize the thermal performance.
- No need to do wire bonding, and normal reflow SAC solder is usable, which is the best for automated implementation.
- Surge performance was strengthened by maximizing the resistive surface.
- Robust enough for bending stress by using 0.8mm substrate.

## Application

Motor drive devices, UPS, Automotive Electronic Devices, Power Generation and Storage Devices, Equipment Power Supply Devices, Medical Electronic Devices, Pre-charge Resistors for DC/DC Converters, Bleeder Resistors, Filter Damping Resistors, Snubber Resistors, Gate Resistors, Terminating Resistors for High-Frequency Electrical Equipment, Absorption Resistors, etc.

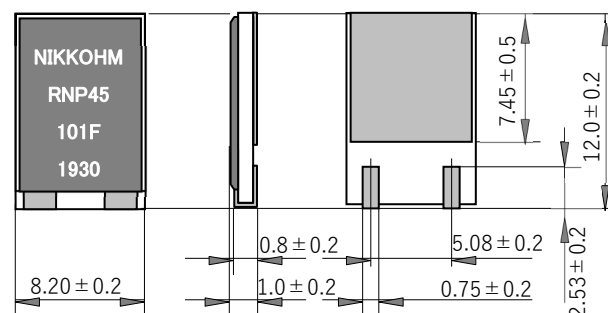
## Rated and Specification

Rated Power	45 W*1
Resistance Range	0.02 Ω – 51kΩ
Thermal Resistance	1.0 °C/W*2
Capacitance	1.44 pF
Inductance	8.38 nH
Operation Temp.	-55 °C to +175 °C
Weight	0.3 gram

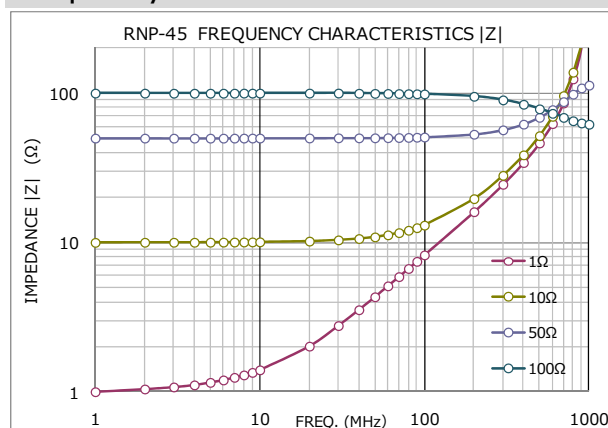
\*1: When Backside metal at -55 °C~+ 25 °C

\*2: Between Resistive and backside metal.

## Dimensions (mm)



## Frequency Characteristics



**For further inquiries, samples, or quotations, feel free to contact to us.**  
[sales@nikkohm.co.jp](mailto:sales@nikkohm.co.jp)  
**NIKKOHM Co., Ltd.**