

POWER RESISTORS

RLP100 TO-247 Package Power Resistors (thick film, non-inductive design)

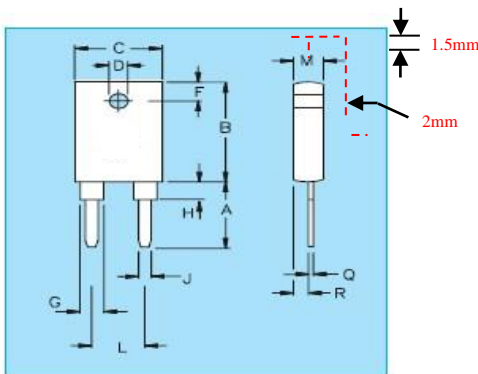
100 Watt Thick Film Power Resistors for High Frequency and Pulse Loading Applications

Rongtech offers the totally encapsulated and insulated TO-247 package for low ohmic value and non-inductive design for high frequency and pulsing applications. Ideal use is for power supplies. This series is rated at 100 Watts mounted to a heat sink.

Technical characteristics:

- ✧ 100 Watt power rating at 25°C case temperature.
- ✧ Standard TO-247 model package, Single screw mounting simplifies
- ✧ Non-inductive design..
- ✧ Fully isolated heat sink
- ✧ Pulse load capability, refer to “EBG power resistor pulse load characteristics”

Dimensions:

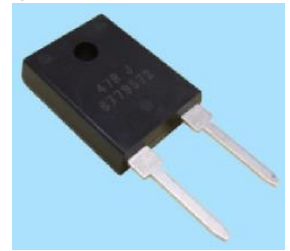


Remark: - - - - compression washer

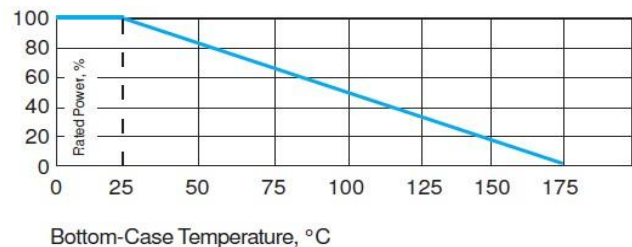
Dim.	Min (mm)	Max (mm)
A	13.21	15.75
B	20.44	20.96
C	15.49	16.01
D	3.53	3.73
F	5.07	5.59
G	3.45	3.81
H	2.03	3.55
	1.37	1.67
L	9.90	10.42
M	4.69	5.21
Q	0.55	1.07
R	2.15	2.67

Specifications:

- ✧ Resistance: 0.2 Ω ~ 1M Ω
- ✧ Tolerance: ±1% ~ ±10% (±0.5% on request)
- ✧ TCR: ±50ppm/°C (25°C ~ 105°C)
- ✧ Rated power: 100W at 25°C
- ✧ Max operating voltage: 700VDC.
- ✧ Dielectric strength: 1,800VAC
- ✧ Insulation resistance: 10G Ω, min.
- ✧ Momentary overload: 2 times rated power, but no more than 1.5 time Max continuous operating voltage, last 5s, $\Delta R \leq \pm(0.3\%R + 0.001\Omega)$.
- ✧ Load life: 2,000 hours at rated power, MIL - R - 39009D $\Delta R \leq \pm(1.0\%R + 0.001\Omega)$.
- ✧ Moisture resistance: MIL - Std - 202, method 106, $\Delta R \leq \pm(0.5\%R + 0.001\Omega)$.
- ✧ Thermal shock: MIL - Std - 202, method 107, Cond. F, $\Delta R \leq \pm(0.3\%R + 0.001\Omega)$.
- ✧ Terminal strength: MIL - Std - 202, method 211, Cond. A, (pull test) 2.4N, $\Delta R \leq \pm(0.2\%R + 0.001\Omega)$.
- ✧ Vibration, high frequency: MIL - Std - 202, method 204, Cond. D, $\Delta R \leq \pm(0.2\%R + 0.001\Omega)$.
- ✧ Working temperature: -55°C ~ +175°C
- ✧ Lead material: tinned copper
- ✧ Installation: M3 screw, Max torque 0.9Nm.



Power derating curve (power VS BCT)



Remark:

- 1, derating slope (thermal resistance) : 0.6667W/°K (1.5°K/W)
Refer to “Rongtech power resistor cooling requirements”
- 2, without heat sink at 25°C, LXP100 rated power is 3.5W, above 25°C derating is 0.02W/°K.

Applicable standard:

IEC60115-1: 2001 (GB/T5729-2003)
MIL-STD-202
MIL - R - 39009D

Order example:

Model	R	TOL	TCR
LXP100	50R	5%	50PPM