

TPU SERIES

Thick Film Non-inductive Power Resistor

Features and Applications

Recommended for mounting onto a heatsink to improve heat dissipation. The bottom case is affixed to the system heatsink, and the resistor dissipates heat through thermal exchange between the bottom case and the heatsink. The ambient temperature mentioned refers to the bottom case temperature of the resistor, typically denoted as the temperature at the center of the bottom case. Characteristics include non-inductive design, high resistance voltage, compact size, high power capacity, long lifespan, moisture resistance, and high stability. Applications encompass power supply, control equipment, automatic control, and power electronics.



■ GENERAL SPECIFICATIONS

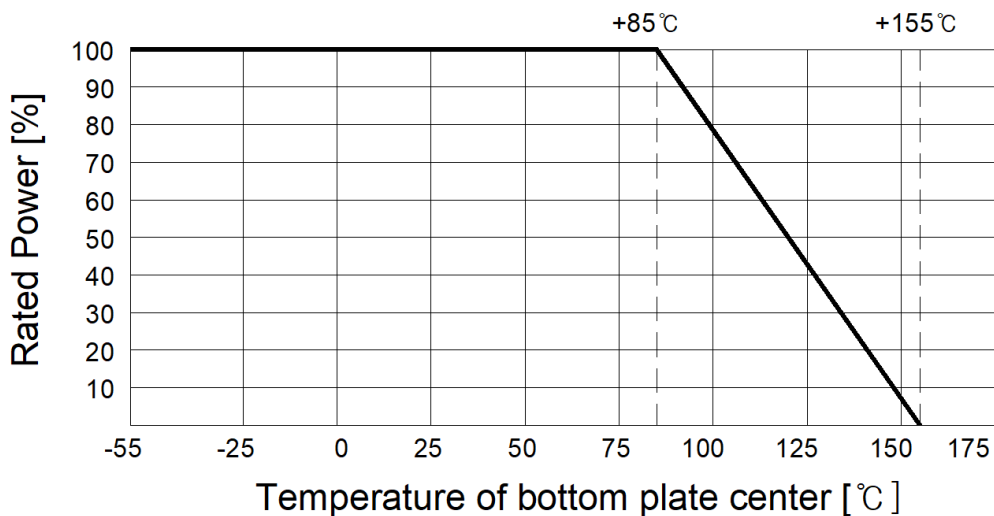
Model	TPU300	TPU600	TPU800
Rated power (at bottom plate center temp. $\leq 85^{\circ}\text{C}$)	300 [W]	600 [W]	800 [W]
Resistance range	4.7 [Ω] – 500 [M Ω]		
Tolerance	F [$\pm 1\%$] / G [$\pm 2\%$] / J [$\pm 5\%$] / K [$\pm 10\%$]		
T.C.R	$\pm 50\text{ppm}/^{\circ}\text{C} \sim \pm 250\text{ppm}/^{\circ}\text{C}$		
Max. working Voltage	5KV - 11KV		
Insulation Voltage	6KV		
Contacts	M5		
Mounting	M4		
Operating temperature	$-55^{\circ}\text{C} \sim +150^{\circ}\text{C}$		

■ CHARACTERISTICS

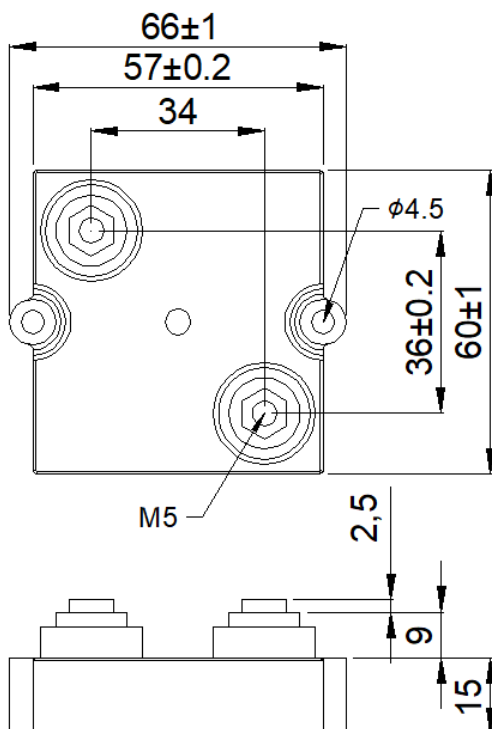
Values in [] mean changed in Ω after test

Items	Requirement	Conditions
Short Time Overload	$\Delta R \leq \pm(0.2\%R + 0.1\Omega)$	1.5times rated power for 5seconds, but not over 1.5times continuous U_{max} .
Insulation Resistance	$\geq 10G\Omega$ 1Min	500Vdc.
Load Life	$\Delta R \leq \pm(0.5\%R + 0.1\Omega)$	At rated voltage, 90min "On", 30min "Off", total 1,000hours.
Humidity Resistance	$\Delta R \leq \pm(0.4\%R + 0.1\Omega)$	$40^{\circ}\text{C} \pm 2^{\circ}\text{C}$, RH 90%-95%, 240hours.
High/Low Temp.	$\Delta R \leq \pm(0.2\%R + 0.1\Omega)$	Store at $-65^{\circ}\text{C} \sim +125^{\circ}\text{C}$ for 2H, cycle for 5times.

DERATING CURVES

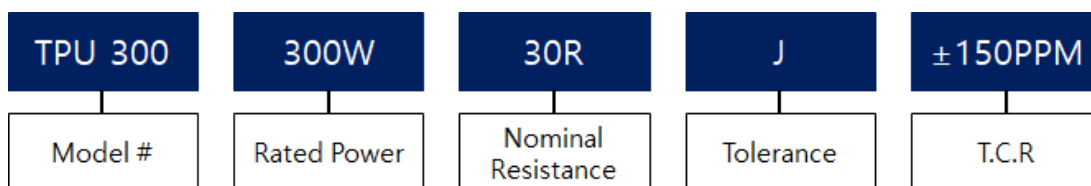


DIMENSIONS[mm]



* Unspecified tolerance is ±0.3mm

ORDERING PROCEDURE EXAMPLE



Note : Please confirm the technology parameters before order.