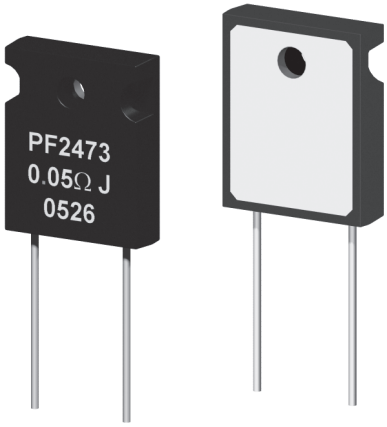
PF2470 Series

TO-247 Power Film Resistors



- **TO-247 Housing**
- **Rated Power to 140 Watts**
- **Resistances from 0.02 to 51K Ohms**
- **High Stability Film Resistance Elements**
- **Resistance Tolerance to ±1%**
- **Low Inductance (<50nH)**
- **Isolated Back Plate**

SPECIFICATIONS

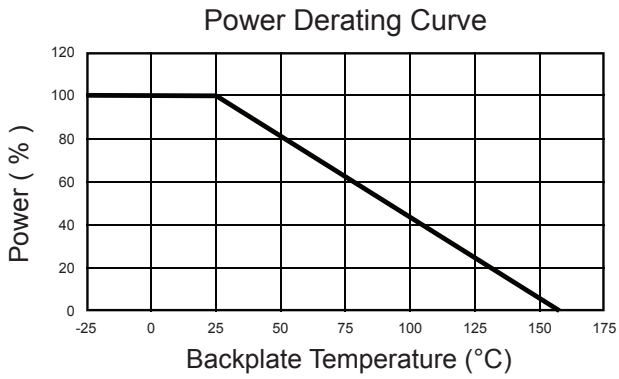
Type	Power Rating Heatsink[1]	Power Rating Free Air[2]	Thermal Resistance	Resistance Range[3] Min	Resistance Range[3] Max	Tolerances	Temperature Coefficients
PF2473	140W	5W	0.9°C/W	0.02Ω	51KΩ	±1% (R≥0.10Ω) ±5%	±50ppm/°C (R≥10Ω) ±100ppm/°C (0.1Ω ≤ R < 10Ω) ±250ppm/°C (R < 0.1Ω)
PF2472	100W	3W	1.3°C/W	0.02Ω	51KΩ	±1% (R≥0.10Ω) ±5%	±50ppm/°C (R≥10Ω) ±100ppm/°C (0.1Ω ≤ R < 10Ω) ±250ppm/°C (R < 0.1Ω)

[1] Power rating based on 25°C Flange Temperature
[2] Power rating based on 25°C Ambient Temperature
[3] Consult Factory for Higher or Lower Values

Specification	Value	
Temperature Range	-55°C to +155°C	
Dielectric Strength	2500 VAC	
Max. Operating Voltage	700 V or √P*R, whichever is less	
Inductance	PF2472 11.7nH / PF2473 12.3nH	
Insulation Resistance	>1000 Meg-Ohm	
Environmental Performance	**ΔR**	**Test Conditions**
Load Life	±1% + 0.05Ω	25°C, 90 min ON, 30 min OFF, 1000 hr
Humidity Resistance	±1% + 0.05Ω	40°C, 90-95% RH, DC 0.1W, 1000 hr
Temperature Cycle	±0.25% + 0.05Ω	-55°C for 30 min, +155°C for 30 min, 1000 hr
Solder Heat	±0.1% + 0.05Ω	+350°C, 3s
Vibration	±0.25% + 0.05Ω	IEC60068-2-6

Riedon Inc. 300 Cypress Avenue Alhambra CA 91801 (626) 284-9901 (626) 284-1704
www.riedon.com

SPECIFICATIONS (continued)



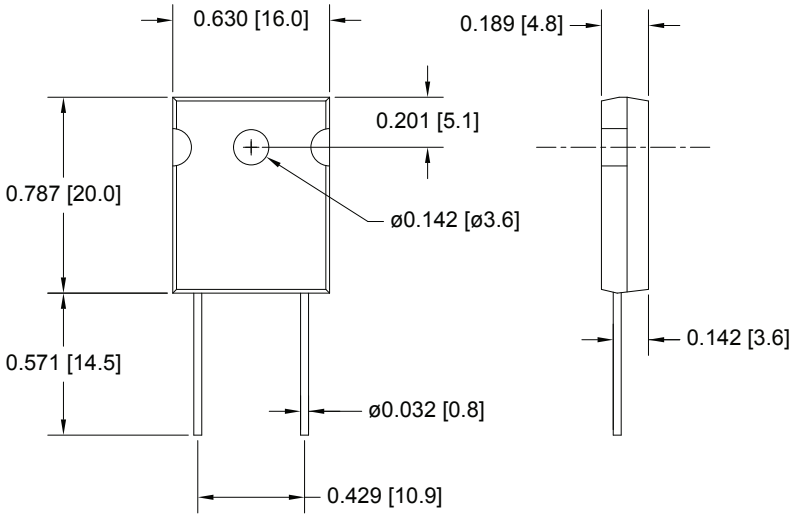
Power Rating Notes -

The PF2470 Series Thin Film Resistors must be attached to a suitable heatsink. The maximum internal resistor temperature is 155°C.

To specify an appropriate heatsink use the following formula :

$$R_{\Theta H} = \frac{T_{MAX} - (P * R_{\Theta R}) - T_A}{P}$$

Where: $R_{\theta H}$ = Thermal Resistance of Heatsink (°C/W)
$R_{\theta R}$ = Thermal Resistance of Resistor (°C/W)
T_{MAX} = Maximum Temperature of Resistor
T_A = Ambient Temperature of Heatsink (°C)
P = Power Through Resistor (W)



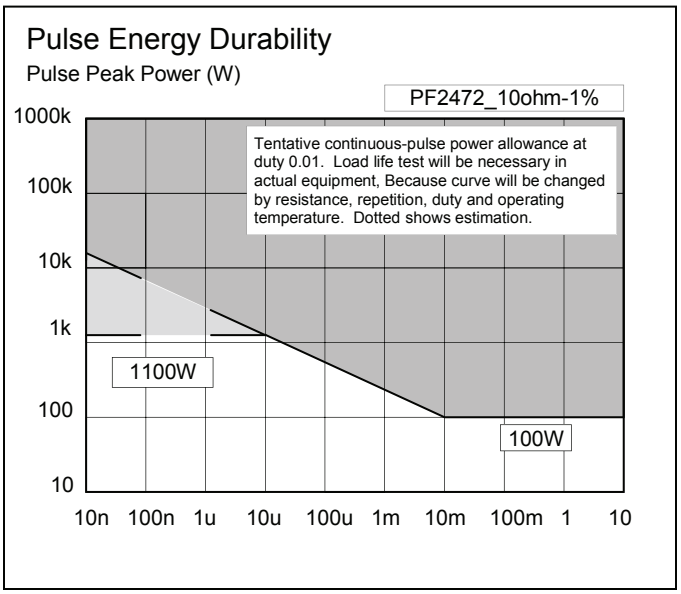
Mounting Notes -

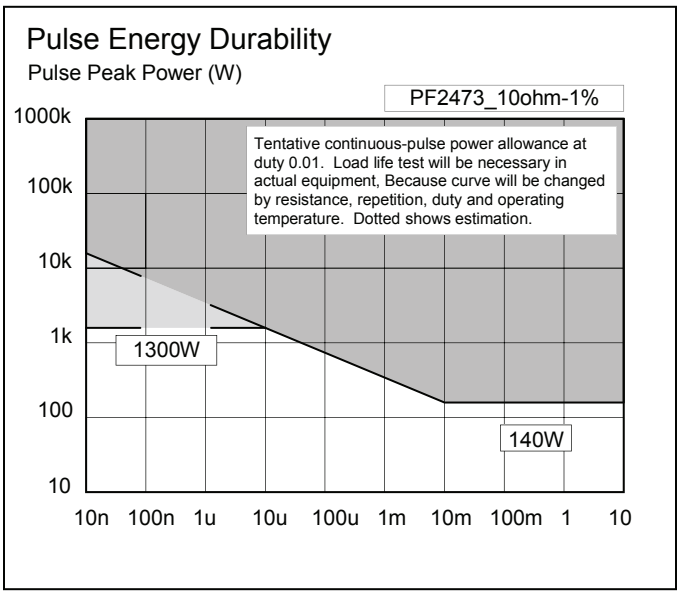
The PF2470 Series Thin Film Resistors must be attached to a suitable heatsink. Mount resistor using thermal grease to a clean, flat surface. Use a compression washer to provide 150 to 300 pounds (665 to 1330N) of mounting force. Torque mounting screw to 8 in-lbs (0.9 N-m).

Back plate is isolated from both pins.

Ordering Information

Part Description: Part Type - Resistance - Tolerance
Example: PF2472 10 Ohm 1%


Pulse Energy Durability
Pulse Peak Power (W)
PF2472_10ohm-1%
Tentative continuous-pulse power allowance at duty 0.01. Load life test will be necessary in actual equipment, Because curve will be changed by resistance, repetition, duty and operating temperature. Dotted shows estimation.
1000k
100k
10k
1k
100
10
1100W
100W
10n 100n 1u 10u 100u 1m 10m 100m 1 10


Pulse Energy Durability
Pulse Peak Power (W)
PF2473_10ohm-1%
Tentative continuous-pulse power allowance at duty 0.01. Load life test will be necessary in actual equipment, Because curve will be changed by resistance, repetition, duty and operating temperature. Dotted shows estimation.
1000k
100k
10k
1k
100
10
1300W
140W
10n 100n 1u 10u 100u 1m 10m 100m 1 10