



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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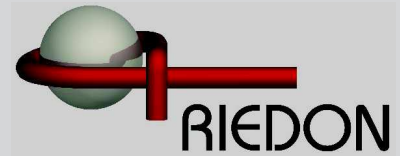
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



PFU Series

1000 W & 800 W

High Power Resistors / High Voltage Resistors



- High Power Density
- 0.5 Ohm to 1 Mohm
- Very Low Inductance
- Vibraton Proof
- Applications:



**Power Supplies, Motor Controls,
Snubber Resistors, Load Banks,
Robotics**

SPECIFICATIONS

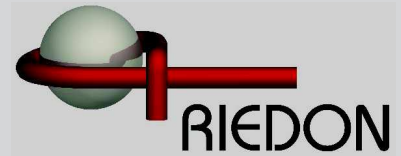
Type	PFU 800	PFU 1000	Conditions
Rated Power	800	1000	At Flange Temperature -55 to +75 °C
Short Time Overload	1000	1200	5 Seconds
Thermal Resistance	0.10 °C / W		From Resistor to Flange
Resistance Range	0.5 ohm TO 1 Mohm		
Nominal Resistance	E24+		Additionally , 2.0 and 5.0
TCR	+/- 100 PPM/K (A)		1 ohm to 1 Mohm, +/- 200PPM/°C < 1 ohm , for -55 to +155 °C
Tolerance	+/- 5% (J)		
Operation Temperature	-55 to +175 °C		At Resistor Element Surface
Max Applied Voltage	$V = \sqrt{P \cdot R}$ (5000V Max)		P Rated Power (W), R - resistance value (ohm), V - voltage (V)
Insulation Voltage	8000 V-30Hz	8000 V-50Hz	60 seconds between Terminals and Flange. Leak current below 0.5 mA
Capacitance	73 pF		Terminal to Flange
Inductance	108 nH		Terminal to Terminal
Capacitance	25 pF		Terminal to Terminal
Creep Distance	42 mm		
Air Distance	14 mm		
Load Life	ΔR +/- 0.40%		Continuous Power 1000 hours
Humidity	ΔR +/- 0.25%		60 °C, 90 to 95% RH, DC 0.1W, 1000 hours
Temperature Cycle	ΔR +/- 0.20%		-55 °C, 30 min, +155 °C 30 min, 5 cycles
Insulation Resistance	Over 1G ohm		
Vibration	ΔR +/- 0.25%		See Note below
Flammability	UL94V-0		For Resistor Body
Weight	120 grams		

Note: IEC60068 2-6 displacement 0.75 mm or acceleration 100m/J² 10Hz to 54Hz sweep, 10 cycles X,Y,Z direction

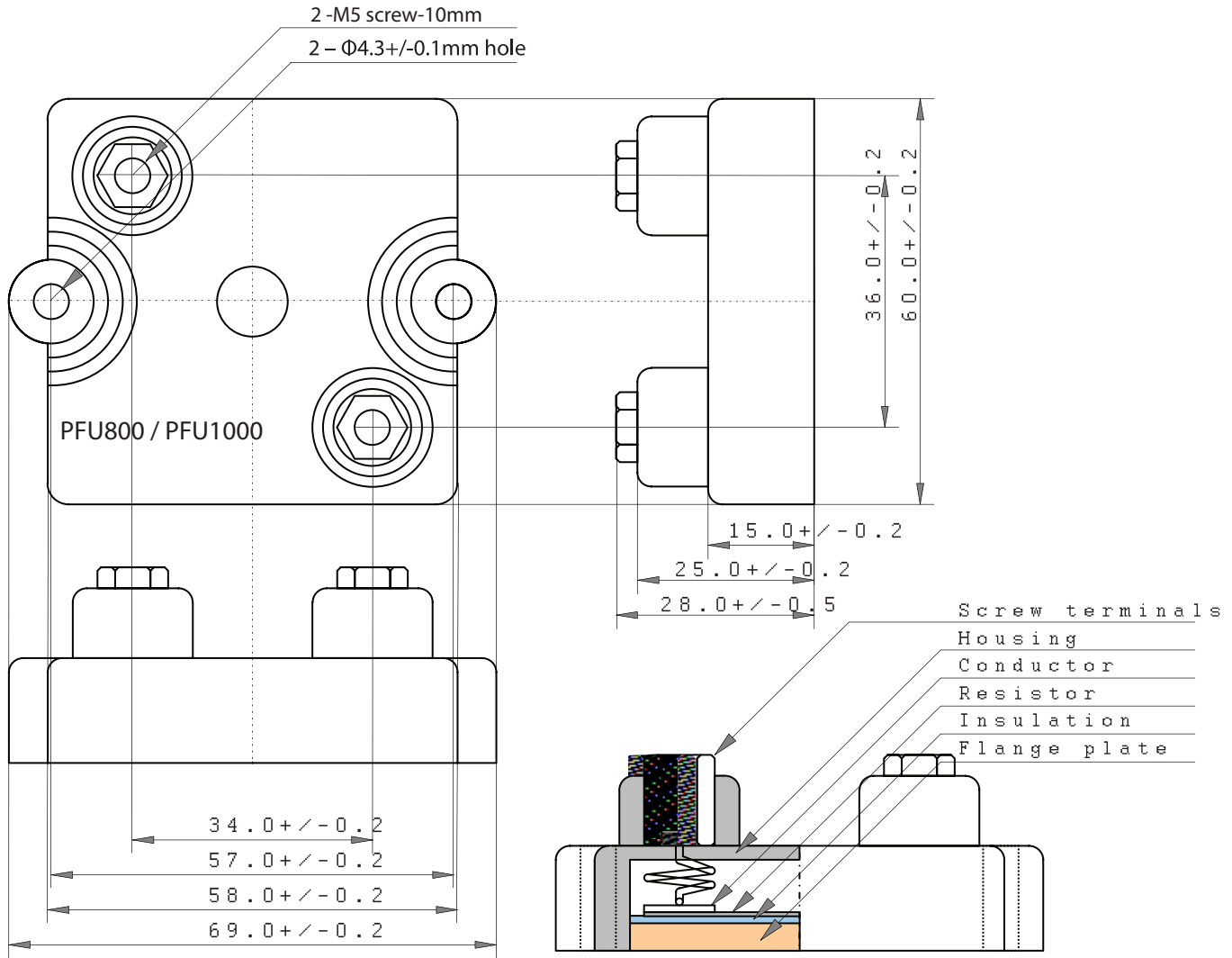
PFU Series

1000 W & 800 W

High Power Resistors / High Voltage Resistors



SPECIFICATIONS (continued)



Recommended: Mounting Torque: 1.8Nm (M4)
Contact Torque: 2.0 Nm (M5)

Power Rating Notes -

The PFU Series Power Film Resistors must be attached to a suitable heatsink. The maximum internal resistor temperature is 175°C. **Liquid Cooling highly recommended.**

To specify an appropriate heatsink use the following formula :

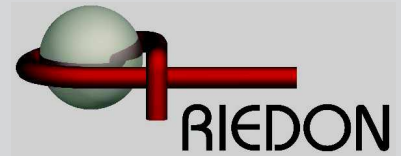
$$R_{\theta H} = \frac{T_{MAX} - (P * R_{\theta R}) - T_A}{P}$$

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

PFU Series

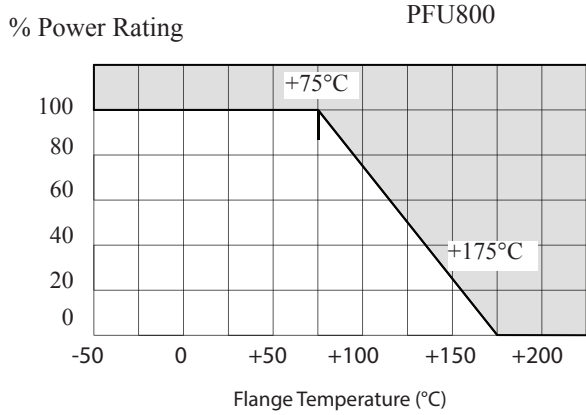
1000 W & 800 W

High Power Resistors / High Voltage Resistors

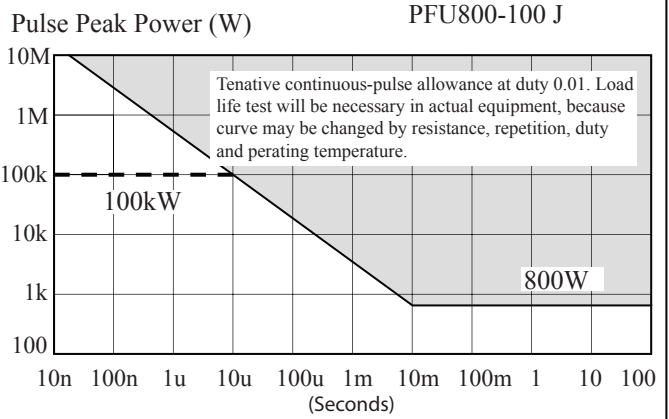


SPECIFICATIONS (continued)

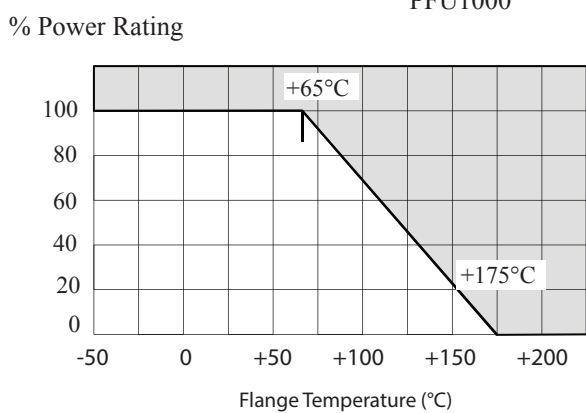
Derating Curve



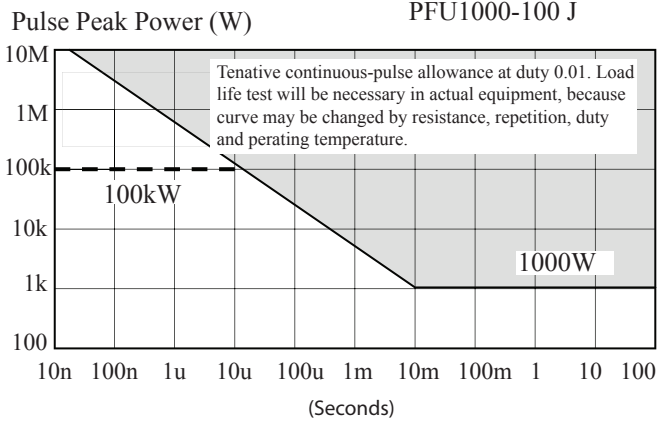
Pulse Energy Durability



Derating Curve



Pulse Energy Durability



Ordering Information

Part Description: Part Type - Terminal Style - Resistance - Tolerance

PFU800 10 Ohms 5%