

Ultra-High-Power Resistors

Series UPT 400

400 W Resistor · US Patent-No. 5,355,281

For variable speed drives, power supplies, control devices, robotics, motor control and other power devices, the easy mounting fixture guarantees an auto-calibrated pressure to the cooling plate of about 120 to 160 N.

General Characteristics

Encapsulation:

- Special resin-filled epoxy casing with large creeping distance to mass, large air distance between the terminals and high insulation resistance.

Resistance Element:

- Special design for low inductance and capacitance values. The element employs our special METOXFILM, which demonstrates stability while covering high wattage and pulse loading.

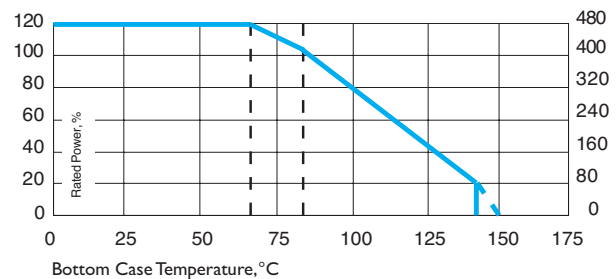
Contacts:

- Easy load connecting with M5 screws (others upon special request).



Specifications

- Resistance values: 0.5 Ω to 1 MΩ
- Resistance tolerance: ±5% to ±10%, tighter tolerances are available upon request, with reduction of max. power/pulse rating. Please ask our local representative!
- Temperature coefficient: ±150 ppm/°C (others upon request)
- Maximum working voltage: 5,000 V DC, higher voltage upon request, not exceeding max. power
- Short time overload: 700 W at 70°C for 10 sec., ΔR = 0.4% max.
- Power rating: up to 400 W at 85°C bottom case temperature
- Electric strength voltage: 6 kVrms, 50 Hz, (higher on request)
- Single shot voltage: up to 12 kV norm wave (1.5/50 μsec)
- Partial discharge: 4 kVrms, <10 pC, up to 7kV upon special request
- Insulation resistance: 10 GΩ min. at 500 V
- Inductance: 80 nH (typical)
- Capacity/mass: 110 pF (typical)
- Capacity/parallel: 40 pF (typical)
- Operating temperature: -55°C to +150°C
- Mounting - max. torque for contacts: 2 Nm
- Mounting - Max. torque : 1.8 Nm M4 screws
- Housing material acc. to UL94-V0
- Standard storage conditions: 0 to 85°C at 80% RH max. for min. 12 months. For different conditions please contact your local EBG representative!
- Pulse load rating: please see our website (www.ebg-at.com/...) for sample pulse load information. For details please contact your local EBG representative!



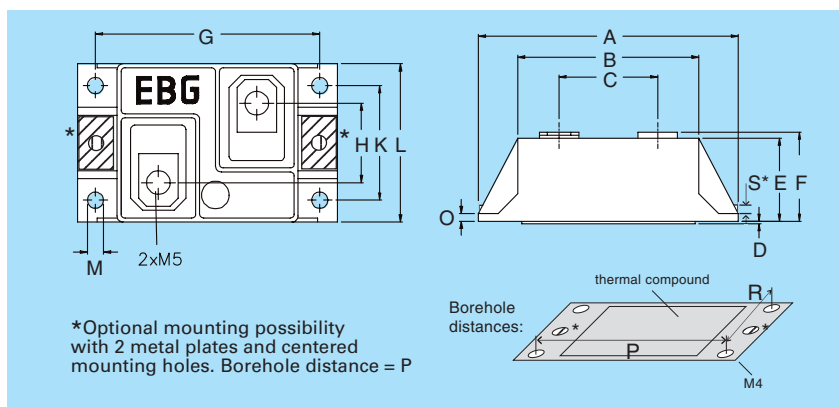
Derating (thermal resist.) UPT 400: 5.55W/°K (0.18°K/W)

Power rating: 400W at 85°C bottom case temp.*

Please ask for detailed mounting procedure!

* This value is only applicable if using thermal conduction to heat sink $R_{th-cs} < 0.025^{\circ}K/W$. This value can be obtained by using a thermal transfer compound with a heat conductivity of 1 W/mK. The flatness of the cooling plate must be better than 0.05 mm overall. Surface roughness should not exceed 6.4 μm.

For other configurations, please contact EBG.



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	65.2	66.8	2.567	2.630
B	45.2	46.8	1.780	1.843
C	24.5	25.5	0.965	1.004
D	0.1	0.2	0.004	0.008
E	20.5	21.5	0.807	0.846
F	22.0	23.0	0.866	0.906
G	56.2	57.8	2.213	2.276
H	19.5	20.5	0.768	0.807
K	28.5	29.5	1.122	1.161
L	39.2	40.8	1.543	1.606
M	4.1	4.3	0.161	0.169
O	1.85	2.15	0.073	0.085
P	56.8	57.2	2.236	2.252
R	28.8	29.2	1.134	1.150
S*	1.3	1.7	0.051	0.067

The above spec. sheet features our standard products. For further options, please contact our local EBG representative or contact us directly. For updated information, please visit our website!