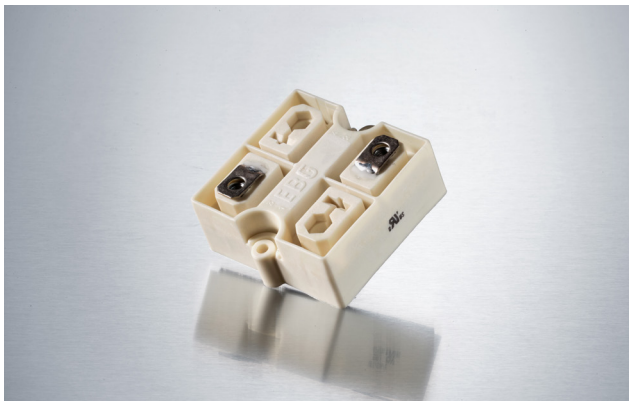
Series UPT®-2000

2000 W resistor, US Patent-No. 5,355,281

For variable speed drives, power supplies, control devices, robotics, motor control and other power designs, the easy mounting fixture assures an auto-calibrated pressure to the cooling plate of about 300 N.



Features

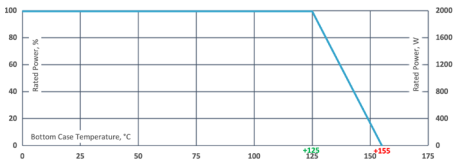
- multiple resistors in 1 package
- Non-Inductive design
- ROHS compliant
- High insulation & partial discharge performance
- Materials in accordance with UL 94 V-0
- Resistor is also available with preapplied PCM (Phase Change Material) (ask for details)

Technical Specifications

Resistance value	≥0.1 Ω ≤ 6 KΩ (higher values on request)
Resistance tolerance	±5 % to ±10 %
Temperature coefficient	±250 ppm/°C standard lower TCR on special request for limited ohmic values
Power rating	up to 2000 W at 125°C bottom case temperature (see configurations)
Short time overload	2,400 W at 70°C for 10sec., ΔR = 0.4% max. (for configuration 2 and 3)
Maximum working voltage	5,000 V DC = 3.500 V AC RMS (50 Hz) higher voltage on request, not exceeding max. power
Electric strength voltage	7 kVrms / 50 Hz / 500 VA, test time 1 min. between terminal und case (up to 12 kVrms on request) voltages above 10 kVrms are tested at DC equivalent to avoid pre damage of component
Dielectric strength between R1-R2	≤ 5 kV DC (for conf. 4)
Partial discharge	4 kVrms < 10 pC (up to 7 kVrms < 10 pC on request) acc. to IEC 60270
Insulation resistance	> 10 GΩ at 1.000 V
Single shot voltage	up to 12 kV norm wave (1.5/50 µsec)
Inductance	≤ 80 nH (typical), measuring frequency 10 kHz
Capacity/mass	≤ 120 pF (typical), measuring frequency 10 kHz
Capacity/parallel	≤ 40 pF (typical), measuring frequency 10 kHz
Operating temperature	-55°C to +155°C
Mounting - torque for contacts	1.8 Nm to 2 Nm, screw-in depth max. 6 mm
Mounting - torque	1.6 Nm to 1.8 Nm M4 screws
Contacts	standard M5 (M4 on special request)
Terminal tops for additional insulation requirements	on special request (ask for details)
General pulse load information	contact our local EBG representative or contact us directly
Weight	~137 g

General Specifications

Housing
Housings are made without color additives. The color definition is natural and can vary in different pigmentation



Derating (thermal resist.) UPT®-2000: 66.6 W/K (0.015 K/W) for configuration 2 and 3

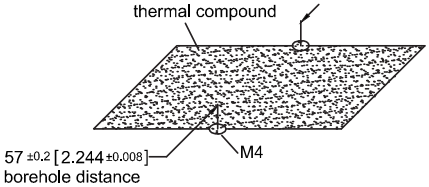
Power rating: 2000 W at 125°C bottom case temperature*

* This value is only applicable when using a thermal conduction to the heat sink Rth-cs<0.025 K/W. This value can be obtained by using a thermal transfer compound with a heat conductivity of at least 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.

Please note most all of our UPT customers have their own custom designed drawing. Therefore please do not hesitate to discuss your special needs with the local representative or contact us directly.

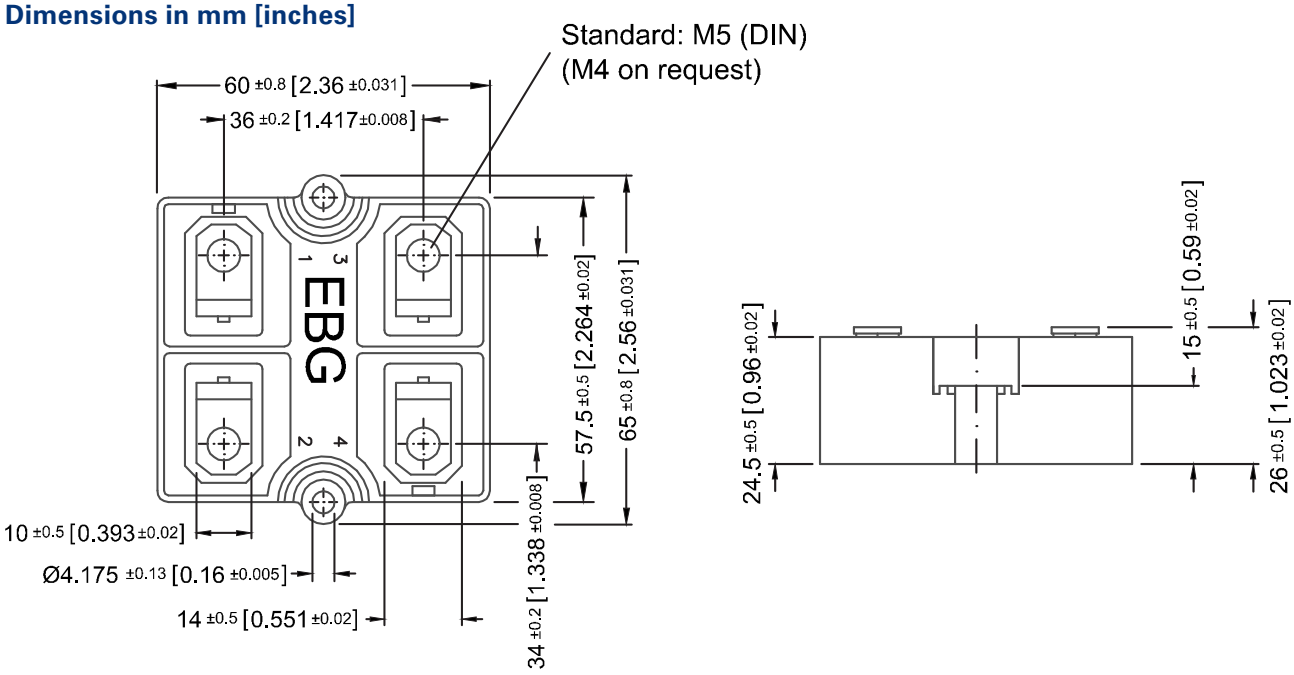
Borehole Distance

Dimensions in mm [inches]



Series UPT®-2000

Dimensions in mm [inches]



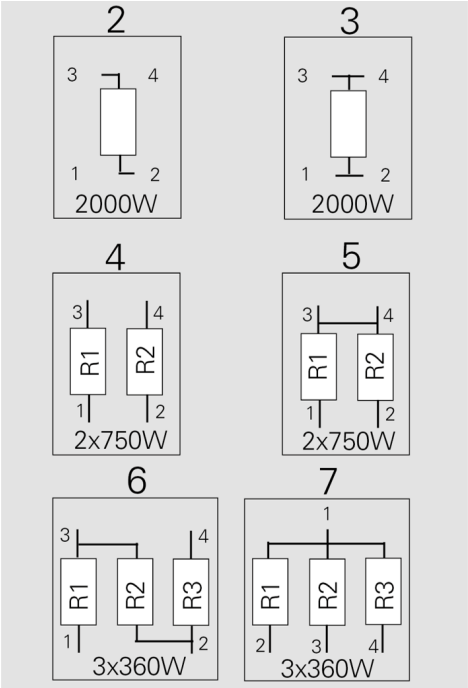
How to make a request

UPT-2000-Configuration_Ohmic Value_Tolerance

For example:
UPT-2000-2 5R 10% or UPT-2000-4 2x1K 5%

Configurations (P / package)

Standard version



sales.mra@miba.com · US: sales@mibaresistors.com

Disclaimer

The given statements and information herein are recommendations for the use of our products and are based on our experience in combination with applicable technical standards.
They are for guidance only and do not represent any assurance of characteristics or warranty commitments for the products or their suitability for specific applications.
The suitability of the products for the intended use by the user depends on different boundary conditions and influencing factors and is to be assessed exclusively by the user.

DISCLAIMER:
NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, IS MADE WITH RESPECT TO THE PRODUCTS, DESIGNS, DATA, INFORMATION DESCRIBED OR ANY INTELLECTUAL PROPERTY CONTAINED THEREIN. ANY WARRANTY OR GUARANTEE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS ALSO EXCLUDED.

The given statements and information herein reflect the current status at the time of publication.
Typing or printing errors cannot be excluded.