

Ultra High Power Resistors

Series UXP 300

300 Watt Power Resistor, Non Inductive Design

Mainly used as a snubber resistor to compensate the C-R peaks in traction power supplies.

General Characteristics

Electric support:

- High alumina ceramic metallized on the top side with EBG Metoxfilm placed on a solid A1 heat distribution plate for perfect connection to the main heat sink.

Encapsulation:

- Special resin filled epoxy casing with large creeping distance to mass, large air distance between the terminals and high insulation resistance (CTI 600).

Resistance Element:

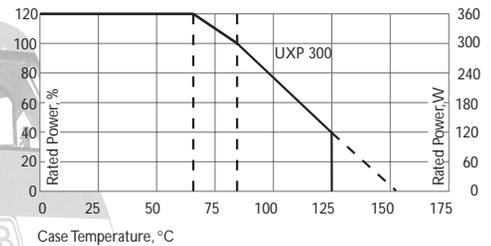
- Special design for perfect current yield over the entire resistor area.

Contacts:

- Easy load connecting with M4 or M5 screws.
- Connector height (M+N) available from 25 to 42mm.
- Various sleeves for increased creeping distance up to 85mm or potted cable connections are available on special request.
- The model UXP 300 introduced on this page can be changed according to customers specification.

Specifications

- Resistance Values: 0.5Ω to 100KΩ
- Resistance Tolerance: ±5% to ±10%
- Temperature Coefficient: ±150ppm/°C (others upon request)
- Maximum Working Voltage: 5,000VDC; higher voltage on request, not exceeding max. power
- Short Time Overload: 1.5x rated power = 450W at 70°C for 10 sec, ΔR = 0.4% max.
- Power Rating: 300W at 85°C bottom case temperature.
- Electric Strength Voltage: 6kVrms, 50Hz, 1Min., up to 8,000Vrms on special request
- Single Shot Voltage: up to 12 kV Normwave (1.5/50 μsec)
- Partial Discharge: 3kVrms <10pC, up to 5kV on special request
- Insulation Resistance: 10GΩ Min. at 500V
- Creeping Distance: 42 mm Min.
- Air Distance: 14 mm Minimum
- Inductance: - 80 nH
- Capacity/Mass: - 110 pF
- Capacity/Parallel: - 40 pF
- Operation Temperature: -55°C to +150°C
- Max. Torque for Contacts: 2 Nm
- Max. Torque for Mounting: 1.8 Nm
- Dimensions: please see page 26



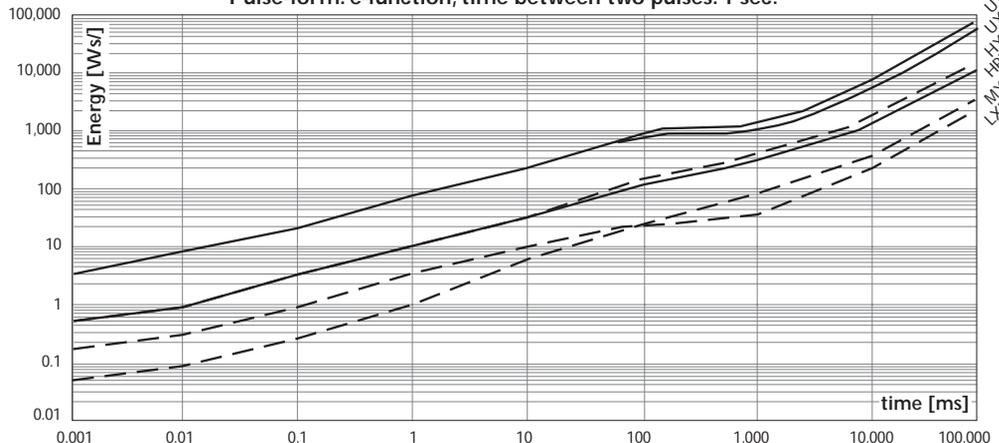
Derating (thermal resist.) UXP 300:
4.36W/°K (0.229°K/W)

Power Rating: 300W at 85°C bottom case temp.*

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

Please note that almost all of our UXP customers have their own custom designed drawing. Therefore please do not hesitate to discuss your special need with the local representative of EBG.

Pulse-form: e-function, time between two pulses: 1 sec.



In the above spec sheet, you will find our standard product, please contact your local manufacturing representative or call us direct to find out details of other options available regarding this style: