



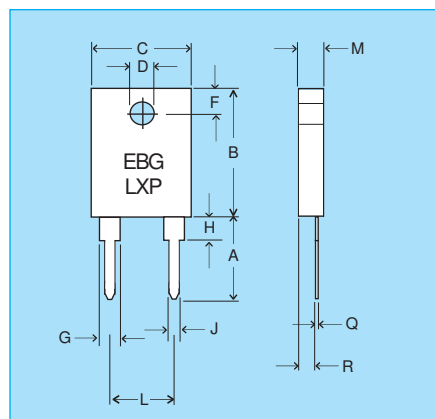
## Series LXP 100 TO-247

100 Watt Thick Film Power Resistor for High Frequency and Pulse Loading Applications

EBG offers the totally encapsulated and insulated TO-247 package for low ohmic value and non-inductive design for high frequency and pulsing applications. Ideal use is for power supplies. This series is rated at 100 Watts mounted to a heatsink.

The special features include:

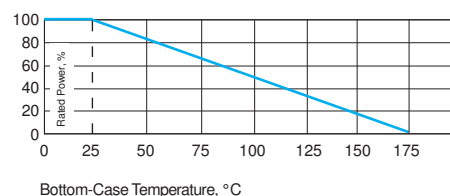
- 100 Watt power rating at 25°C case temperature
- TO-247 package configuration
- Single screw mounting simplifies attachment to the heatsink
- A totally molded housing for environmental protection.
- Non-Inductive design
- Resistor package totally insulated from heat sink.
- Tube packing available! (packing unit: 35 pcs./ tube)
- For perfect heat dissipation, usage of mounting clamp is suggested. (please ask for details)



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	13.21	15.75	0.520	0.620
B	20.44	20.96	0.805	0.825
C	15.49	16.01	0.610	0.630
D	3.53	3.73	0.139	0.147
F	5.07	5.59	0.200	0.220
G	3.45	3.81	0.136	0.150
H	2.03	3.55	0.080	0.140
J	1.37	1.67	0.054	0.066
L	9.90	10.42	0.390	0.410
M	4.69	5.21	0.185	0.205
Q	0.55	1.07	0.310	0.330
R	2.15	2.67	0.085	0.105

### Specifications:

- Resistance Range: 0.05Ω to 1MΩ other values on request
- Resistance Tolerance: ±1% ±2% ±5% ±10%
- Temperature Coefficient: >10Ω: ±50ppm/°C, referenced to 25°C, ΔR taken at +105°C others on request
- Max. Operating Voltage: 350 V max. 500V on request
- Dielectric Strength: 1,800V AC
- Insulation Resistance: 10GΩ min.
- Power Rating: 100 W at 25°C case temperature derated to 0 Watt at 175°C
- Short Time Overload: 1.5x rated power with applied voltage not to exceed 1.5x Vmax. for 5 seconds. ΔR < ± (0.50% + 0.0005Ω)
- Dielectric strength: Mil-Std-202 method 301 (1,800V AC, 60s) ΔR < ± (0.15% + 0.0005Ω)
- Life: MIL-R-39009D 4.8.13 2,000 hours at rated power ΔR < ± (1.0% + 0.0005Ω)
- Moisture Resistance: -10°C to +65°C, RH>90% cycle 240 h ΔR < ± (0.50% + 0.0005Ω)
- Thermal Shock: Mil-Std-202 method 107, Cond. F ΔR < ± (0.50% + 0.0005Ω)
- Terminal Strength: Mil-Std-202 method 211, Cond. A (Pull Test) 2.4 N ΔR < ± (0.20% + 0.0005Ω)
- Vibration, High Frequency: Mil-Std-202 method 204, Cond. D ΔR < ± (0.40% + 0.0005Ω)
- Lead Material: Tinned Copper
- Installation - max. Torque: Using a M3 screw and a compression washer mounting technique is 0.9 Nm

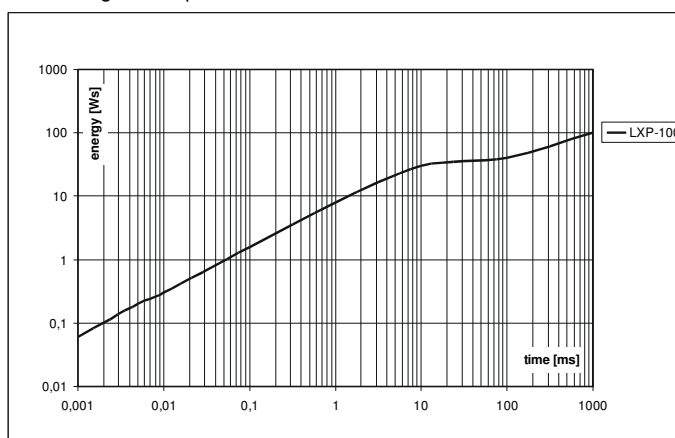


Bottom-Case Temperature, °C

\* This value is only valid by using a thermal conduction to the heatsink  $R_{th-cs} < 0.025$  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.

Derating (thermal resistance): 0.666W/K (1.5K/W). Without a heatsink, when in free air at 25°C, the LXP100 is rated for 3W. Derating for temperature above 25°C is 0.0234W/K.

The case temperature is to be used for the definition of the applied power limit. The case temperature measurement must be done with a thermocouple contacting the center of the component mounted on the designed heat sink. Thermal grease should be applied properly.



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. Please see our website for the most updated information!