Power Resistors

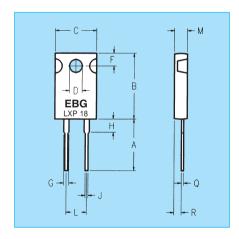
Series LXP 18 TO 220

18 WattThick Film Power Resistors for High Frequency and Pulse Loading Applications

EBG offers the totally encapsulated and insulated TO-220 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 18 Watts mounted to a heat sink.

The special features include:

- 18 Watt power rating at 25°C case temperature
- TO-220 package configuration
- Single screw mounting simplifies attach-ment to the heat sink.
- A totally molded housing for environmental protection.
- · Non-Inductive design
- Resistor package totally insulated from heat sink.

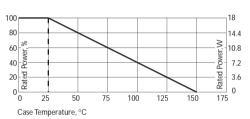


Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
Α	11.43	13.97	0.450	0.550
В	16.00	16.52	0.630	0.650
С	10.15	10.67	0.400	0.420
D	3.08	3.28	0.121	0.129
F	2.92	3.44	0.115	0.135
G	1.14	1.40	0.045	0.055
Н	2.54	4.06	0.100	0.160
J	0.66	0.86	0.026	0.034
L	4.82	5.34	0.190	0.210
M	2.92	3.44	0.115	0.135
Q	0.40	0.60	0.016	0.024
R	1.52	2.04	0.060	0.080

Specifications:

- Resistance Range: 0.05Ω to 1MΩ other values on request
- Resistance Tolerance:
 ±1%, ±2%, ±5%, ±10% (0.5% on request)
- Temperature Coefficient: 10Ω and above, ± 50 ppm/°C, referenced to 25°C, Δ R taken at ± 105 °C. Between ± 100 and ± 100 °C, referenced to 25°C, ± 100 °C, referenced to 25°C, ± 100 °C, referenced to 25°C, ± 100 °C
- Max. Operating Voltage: 350 V
- Dielectric Strength: 1,800V AC
- Power Rating:
 18 W at 25°C. Depends upon case temperature. See Derating Curve.
- Insulation Resistance: $10 \text{ G}\Omega$ min.
- Momentary Overload: 2 times rated power with applied voltage not to exceed 1.5 times maximum continuous operating voltage for 5 seconds, $\Delta R \pm (0.3\% + 0.001\Omega)$ max.
- Load Life: MIL-R-39009, 2,000 hours at rated power, $\Delta R \pm (1.0\% + 0.001\Omega)$.
- Moisture Resistance: MIL-Std-202, Method 106, Δ R $\pm (0.5\% + 0.001\Omega)$ max.
- Thermal Shock: MIL-Std-202, Method 107, Cond. F, ΔR ±(0.3%+0.001Ω) max.
- Terminal Strength: MIL-Std-202, Method 211, Cond. A (Pull Test) 2.4N., ΔR $\pm (0.2\% + 0.001\Omega)$ max.
- Vibration, High Frequency: MIL–Std–202, Method 204, Cond. D, $\Delta R \pm (0.2\% \pm 0.001\Omega)$ max.
- Lead Material: Tinned Copper
- Max. Torque: Using a screw and a compression washer mounting technique is 0.9 Nm





Derating (thermal resistance): 0.144W/°K (6.94K/W). Without a heatsink, when in free air at 25°C, the LXP18 is rated for 2.25W. Derating for temp. above 25°C is 0.018W/°K.

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

