

## Power Resistors

### Series LXP 18TO-220

18 W Thick Film Power Resistors for high-frequency and pulse-loading applications

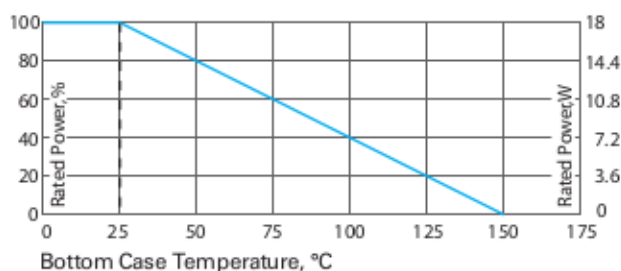
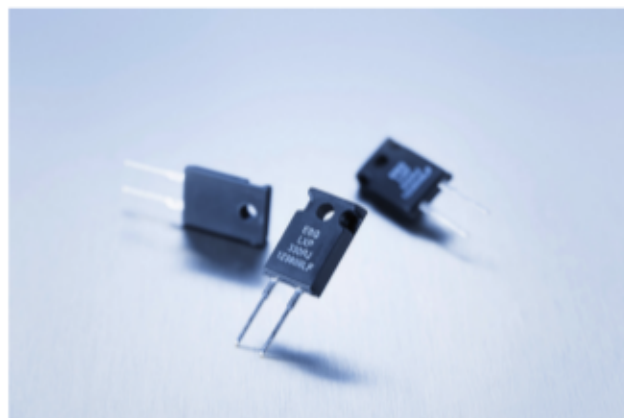
EBG offers the completely encapsulated and insulated TO-220 package for low ohmic value and Non-Inductive Design for high-frequency and pulse-loading applications. Ideal use for power supplies. This series is rated at 18 W mounted to a heat sink.

#### General Characteristics

- 18 W power rating at 25°C case temperature
- TO-220 package configuration
- Single-screw mounting simplifies attachment to the heat sink.
- A fully molded housing for environmental protection.
- Non-Inductive Design
- Resistor package completely insulated from heat sink.

#### Specifications

- Resistance range: 0.05 Ω to 1 MΩ, other values upon request
- Resistance tolerance: ±1%, ±2%, ±5%, ±10% (0.5% upon request)
- Temperature coefficient: 10 Ω and above, ±50 ppm/°C, referenced to 25°C, ΔR taken at +105°C. Between 1 Ω and 10 W, ± (100 ppm+0.002 W)/°C, referenced to 25°C, ΔR taken at +105°C
- Max. operating voltage: 350 V
- Dielectric strength: 1,800 V AC
- Power rating: 18 W at 25°C. Depends upon case temperature. See derating curve.
- Insulation resistance: 10 GΩ min.
- Momentary overload: 2 times rated power with applied voltage not to exceed 1.5 times maximum continuous operating voltage for 5 seconds, ΔR ± (0.3% + 0.001 Ω) max.
- Load life: MIL-R-39009, 2,000 hours at rated power, ΔR ±(1.0% + 0.001 Ω).
- Moisture resistance: MIL-Std-202, Method 106, ΔR ±(0.5% + 0.001 Ω) max.
- Thermal shock: MIL-Std-202, Method 107, Cond. F, ΔR ±(0.3% + 0.001 Ω) max.
- Terminal strength: MIL-Std-202, Method 211, Cond. A (PullTest) 2.4 N, ΔR ±(0.2% + 0.001 Ω) max.
- Vibration, high frequency: MIL-Std-202, Method 204, Cond. D, ΔR ±(0.2% + 0.001 Ω) max.
- Lead material: tinned copper
- Mounting - max. torque: 0.9 Nm using a screw and a compression washer mounting technique
- For pulse power details, please see datasheet UXP-300.



Derating (thermal resistance): 0.144 W/°K (6.94 KW). Without a heat sink, when in open air at 25°C, the LXP18 is rated for 2.25 W. Derating for temperature above 25°C is 0.018 W/°K.

Case temperature must be used for definition of the applied power limit. 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.

Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	11.43	13.97	0.450	0.550
B	16.00	16.52	0.630	0.650
C	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
H	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

