

# Power Resistors

## Series LXP 20 TO 220

### 20 Watt Thick Film Power Resistors for High Frequency and Pulse Loading Applications

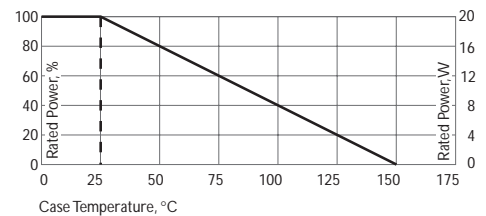
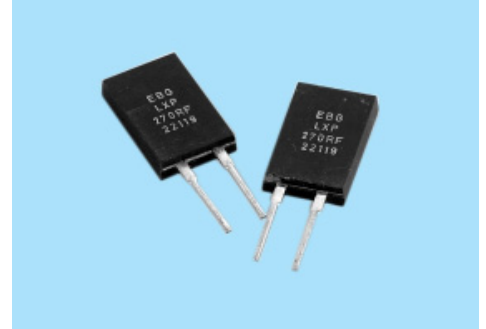
EBG offers the totally encapsulated and insulated TO-220 package for low ohmic value and non-inductive design for high frequency and pulsing applications. Ideal use is for power supplies. This series is rated at 20 Watts mounted to a heat sink.

The special features include:

- 20 Watt power rating at 25°C case temperature
- High pulse tolerant design
- TO-220 package configuration
- Snap-on style TO-220 heat sink required
- A totally molded housing for environmental protection.
- Non-Inductive design
- Resistor package totally insulated from heat sink.

#### 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, ±50ppm/°C, referenced to 25°C, ΔR taken at +105°C. Between 1Ω and 10Ω, ±(100ppm + 0.002Ω)/°C, referenced to 25°C, ΔR taken at +105°C
- Max. Operating Voltage: 350V
- Dielectric Strength: 1,800VAC
- Power Rating: 20W at 25°C. Depends upon case temperature. See Derating Curve.
- Insulation Resistance: 10GΩ 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% + 0.001Ω) max.
- Load Life: MIL-R-39009, 2,000 hours at rated power, ΔR ± (1.0% + 0.001Ω).
- Moisture Resistance: MIL-Std-202, Method 106, ΔR ± (0.5% + 0.001Ω) 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 ± (0.2% + 0.001Ω) max.
- Vibration, High Frequency: MIL-Std-202, Method 204, Cond. D, ΔR ± (0.2% + 0.001Ω) max.
- Lead Material: Tinned Copper

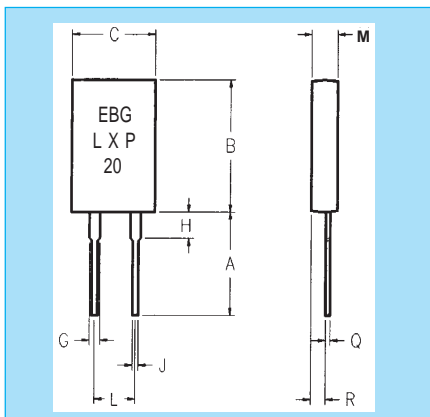


Derating (thermal resistance): 0.16W/°K (6.25°K/W). Without a heatsink, when in free air at 25°C, the LXP20 is rated for 3W. By using the element with a snap-on heat sink the resistor is rated for 5W. Derating for temp. above 25°C is 0.018W/°K.

The case temperature is to be used for the definition 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.



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
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

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:

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