EXAMPLE OF HOW TO SPECIFY

EBG RESISTORS

A Miba Group Company

Power Resistors

Series MXP 35 TO 220

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

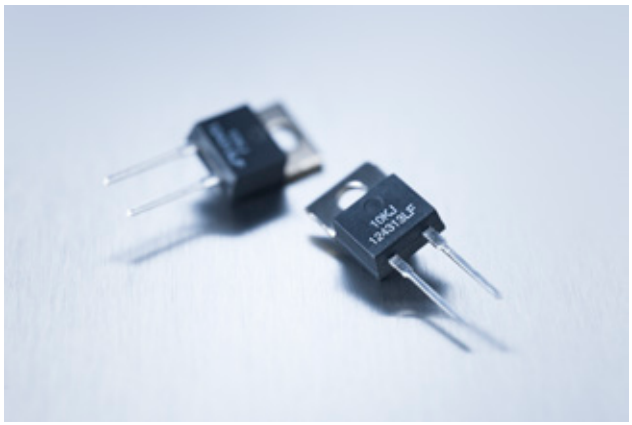
General Characteristics

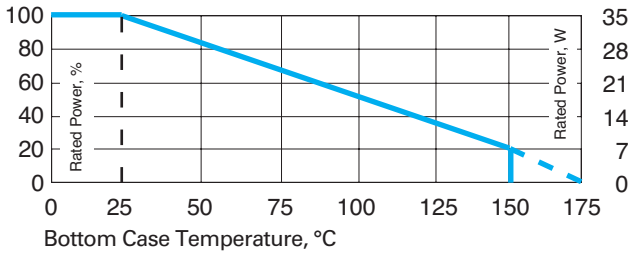
- 35 W power rating at 25°C
- TO-220 package configuration
- Single-screw mounting simplifies attachment to heat sink
- Heat resistance to cooling plate: Rth< 4.28 °K/W
- Molded case for environmental protection.
- Resistor element is electrically insulated from the metal sink tab.
- Standard lead form for easier fit.
- Housing material acc. to UL94-V0

Specifications

- Resistance range: 0.05 Ω to 1 MΩ, other values upon request
- Resistance tolerance: ±1% to ±10% (0.5% upon request)
- Temperature coefficient: 10 Ω and above, ±50 ppm/°C, referenced to 25°C, ΔR taken at +105°C.
  Between 3 Ω and 10 Ω, ±(100 ppm+0.002 Ω)/°C, referenced to 25°C, ΔR taken at +105°C., < 3 Ω please ask for details.
- Max. operating voltage: 350 V
- Dielectric strength: 1,800 V AC
- 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% + 0.01 Ω) max.
- Load life: MIL-R-39009, 2,000 hours at rated power, ΔR ±(1.0% + 0.01 Ω).
- Power rating: depends on case temperature. See derating curve.
- Moisture resistance: MIL-Std-202, Method 106, ΔR = (0.5% + 0.01 Ω) max.
- Thermal shock: MIL-Std-202, Method 107, Cond. F, ΔR = (0.3% + 0.01 Ω) max.
- Working temperature range: –55°C to +175°C
- Terminal strength: MIL-Std-202, Method 211, Cond. A (Pull Test) 2.4N, ΔR = (0.2% + 0.01 Ω) max.
- Vibration, high frequency: MIL-Std-202, Method 204, Cond. D, ΔR = (0.2% + 0.01 Ω) max.
- Lead material: tinned copper
- Maximum torque: 0.9 Nm
- Standard storage conditions: 0 to 85°C at 80% RH max. for min. 12 months. For different conditions please contact your local EBG representative!
- Pulse load rating: please see our website (www.ebg-at.com/...) for sample pulse load information. For details please contact your local EBG representative!

Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	12.70	14.70	0.500	0.579
B	14.50	15.00	0.571	0.591
C	9.91	10.41	0.390	0.410
D	3.55	3.75	0.139	0.148
E	5.85	6.35	0.230	0.250
F	2.85	3.05	0.112	0.120
G	1.17	1.37	0.046	0.054
H	-.--	4.00	-.--	0.157
J	0.70	0.86	0.027	0.034
L	4.83	5.33	0.190	0.210
M	4.06	4.82	0.159	0.190
N	1.20	1.40	0.047	0.055
Q	0.55	0.70	0.022	0.028
R	2.05	2.25	0.080	0.089

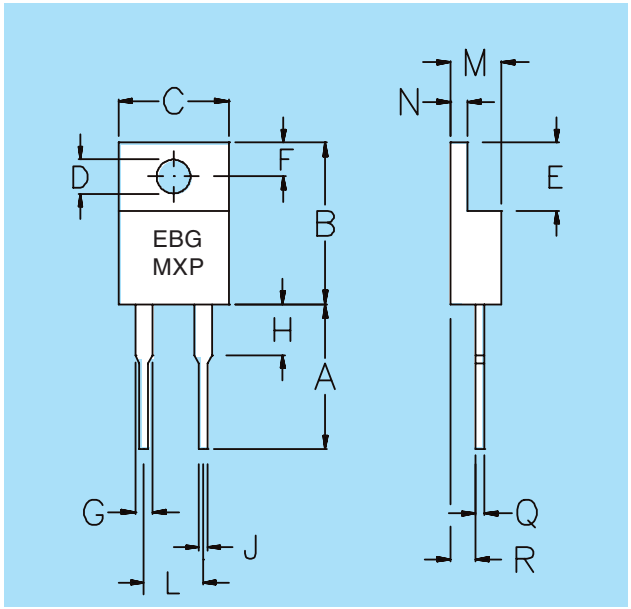




Derating (thermal resistance): 0.23 W/°K (4.28°K/W)

Without a heat sink, when in open air at 25°C, the MXP is rated for 2.50 W. Derating for temperature above 25°C is 0.02 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.



The above spec. sheet features our standard products. For further options, please contact our local EBG representative or contact us directly. For updated information, please visit our website!