THICK-FILM POWER RESISTORS

AXP-A-100-B

Technical specifications

Up to 100 W at 85 °C bottom case

Non-inductive metal-oxide thick film with flexible leads and a mechanically reinforced B package. Available in six wiring configurations for variable-speed drives, power supplies, control devices, telecommunications, robotics, motor control and switching devices.

RoHS compliant. Materials in accordance with UL 94 V-0. See wiring diagrams for terminal assignments.



Electrical and mechanical ratings

PARAMETER	SPECIFICATION
Rated power	Up to 100 W at 85 °C bottom case
Short-time overload	1.5 × rated power · 10 s · ΔR ≤0.4%
Resistance range	1 Ω to 1 MΩ
Resistance tolerance	±1% to ±10%
Temperature coefficient	±50 to ±250 ppm/°C
Operating temperature	−55 °C to +155 °C
Standard working voltage	500 V
Terminal-to-case withstand	5 kV DC (3 kV AC)
R1–R2 dielectric strength	5 kV DC
Standard lead length	100 mm · other lengths on request
Standard lead type	Black PVC · 0.75 mm² · 20 AWG
Mounting screws	2 × M4
Mounting-hole spacing	30.0–37.0 mm
Final mounting torque	1.0–1.2 N·m
Weight	Approx. 22 g

TCR measured at +85 °C with +25 °C as the reference.

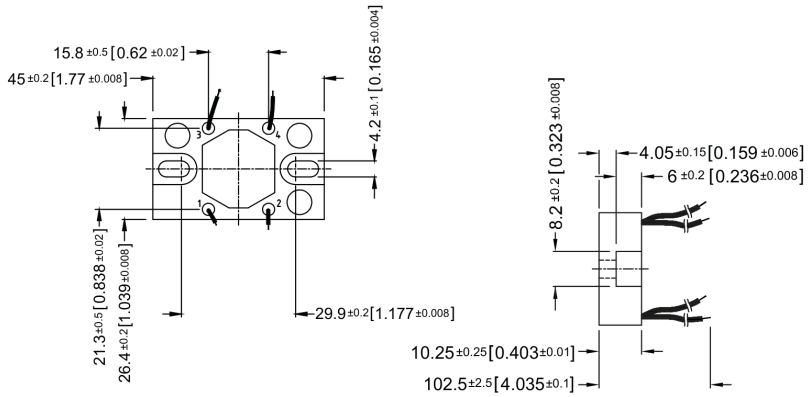
Higher terminal-to-case withstand is available on request.

S: up to 1,500 V, special trimming. U: up to 1,500 V, higher pulse capability, untrimmed.

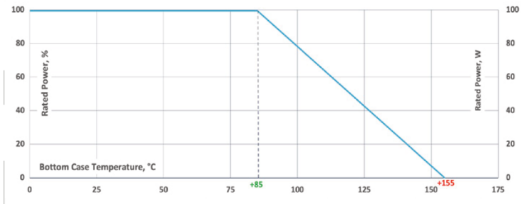
Mounting procedure

1. Position the resistor and press it down by hand.
2. Pre-tighten both M4 screws to 0.1–0.2 N·m.
3. Tighten both screws to 1.0–1.2 N·m.

Outline dimensions · mm [inches]



Power derating



Configurations 1–3: 1.42 W/K (0.70 K/W).

Overload applies to configurations 1–3.

Thermal compound conductivity ≥1 W/(m·K).

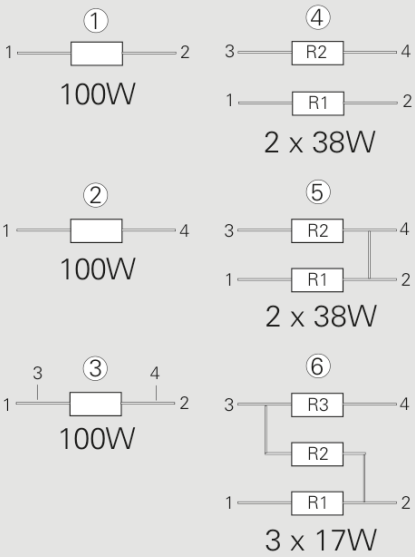
Cooling plate flatness <0.05 mm; surface roughness ≤6.4 µm.

Ordering examples

Series / Configuration B / Resistance / Tolerance

AXP-A-1 B 2K 10%
AXP-A-4 B 2×50R 5%
AXP-A-1-B-S 55K 5%

Circuit configurations



Configuration 5: resistance between contacts 2 and 4 is approximately 3 mΩ.