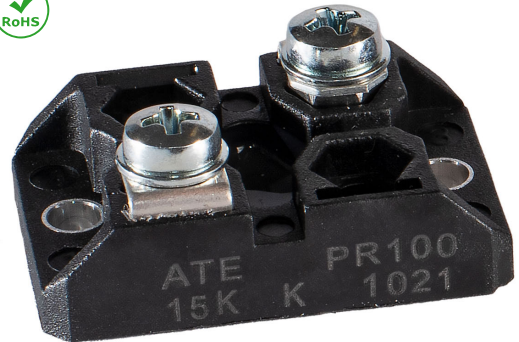


PR100-101 Thick film power resistors
PR102-103

THICK FILM POWER RESISTORS PR100

FEATURES

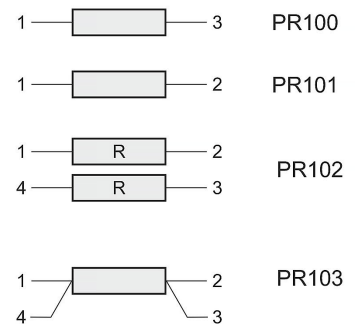
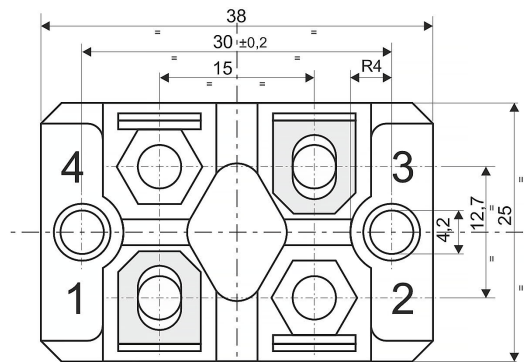
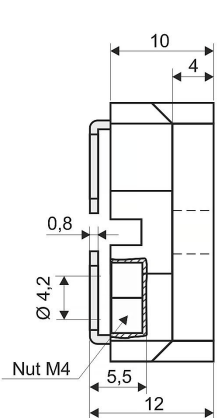
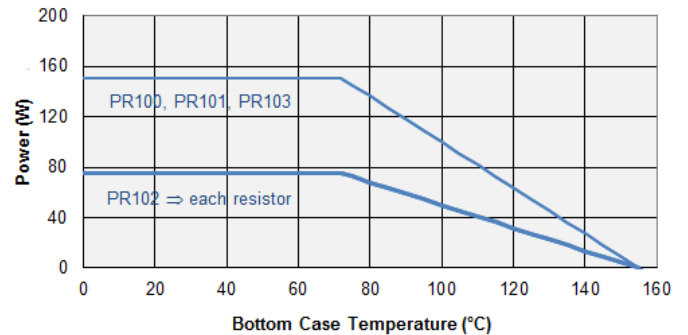
Very good ratio Power / Volume.
Easy mounting and wiring with significant cost advantages.
Non inductive performance for high frequency applications.
One model for power up to 150W.
Suited to UL94-V0 application.
SOT227 configuration.



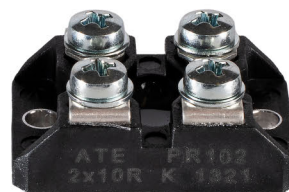
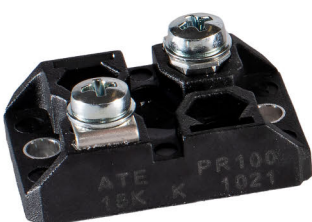
ELECTRICAL SPECIFICATIONS

- Power rating : 100W (PR102 2 x 50W)
- Max power not trimmed : 150W (heatsink at 70°C)
- Resistance range: From 1R0 to 1M Ω , E12 series
- Tolerance: Standard 10%, up to 1% on request
- Temperature coefficient : ± 100 ppm/ $^{\circ}$ C
- Max Work Voltage : 1500 Vac
- Work Temperature Range : From -55 $^{\circ}$ C to +155 $^{\circ}$ C
- Dielectric Strength : 2500 Vac
- Insulation resistance : > 10 8 M Ω at 500V
- Partial discharge : < 80 pC @ 2000 Vac (on request)
- Self inductance : 40 nH
- Capacitance to heatsink : < 30 pF
- Overload : 2 Pn x 10 s
- Thermal resistance : 0.5 $^{\circ}$ C/W
- Heatsink flatness : 0.05 mm Max
- Heatsink surface finish : 6.3 μ m Max
- Thermal grease : required
- Max torque for contact : 1.2 Nm (static)
- Max torque for mounting : 1.5 Nm (static)
- Weight : 18 g (PR100 / PR101)
24 g (PR102 / PR103)

PR100 - Power derating



Connection and mounting screws supplied with the resistor



THICK FILM POWER RESISTORS PR250

FEATURES

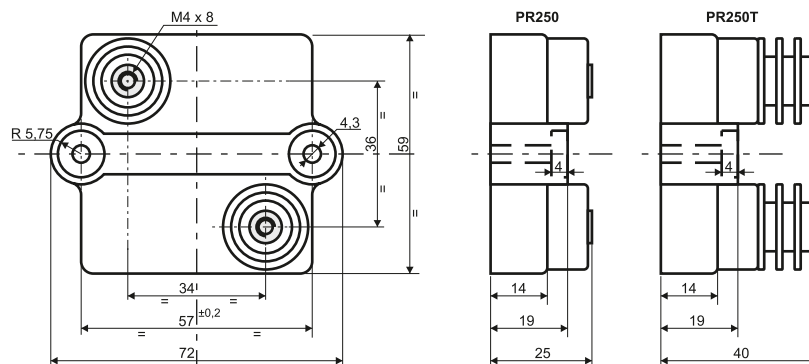
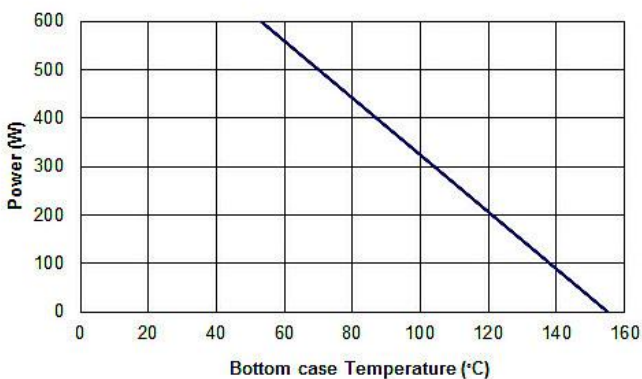
Very good ratio Power / Volume
Easy mounting and wiring with significant cost advantages.
Non inductive performance for high frequency applications.
One models for power applications up to 500W.
Suited to ULV94-V0 application.



ELECTRICAL SPECIFICATIONS

- Power rating: 250W (heatsink at 100°C)
- Resistance range: From 1R0 to 1MΩ, E12 series
- Tolerance: Standard 10%, up to 1% on request
- Temperature coefficient: ±100 ppm/°C
- Max Work. Voltage: 5000 Vac
- Work Temp. Range: From -55°C to +155°C
- Dielectric Strength: 7000 Vac (12000 Vac x PR250T)
- Insulation resistance: > 10⁸ MΩ at 500V
- Creep distance: 42 mm (65 mm x PR250T)
- Air gap distance: 16 mm (29mm x PR250T)
- Partial discharge: < 10 pC @ 5000 Vac
- Self inductance: 80 nH
- Parallel capacitance: 40 pF
- Capacitance to heatsink: < 120 pF
- Overload : 4 Pn x 10 s
- Thermal resistance: 0.15 °C/W
- Heatsink flatness: 0.05 mm Max
- Heatsink surface finish: 6.3 μm Max
- Thermal grease: Required λ > 1W/mk
- Max torque for contacts: 2Nm (static)
- Max torque for mounting: 2Nm (static)
- Weight: 100 g (130 gr for PR250T)
- Options: For values R039 <R< 1R0 is available Metal Foil type **PR500M**

PR250 - Power derating



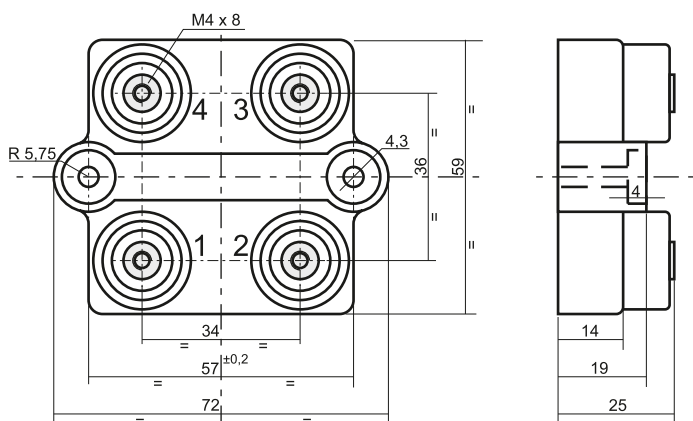
"Connection and mounting screws are supplied with the resistor
All dimensions are in mm"

PR254 Resistori di potenza a film spesso


**RESISTORI DI POTENZA
A FILM SPESSO PR254**

CARATTERISTICHE

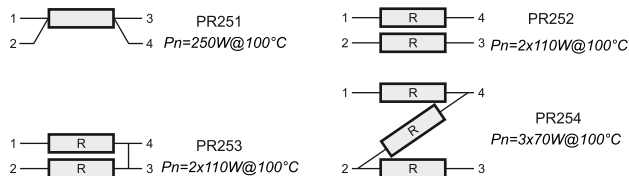
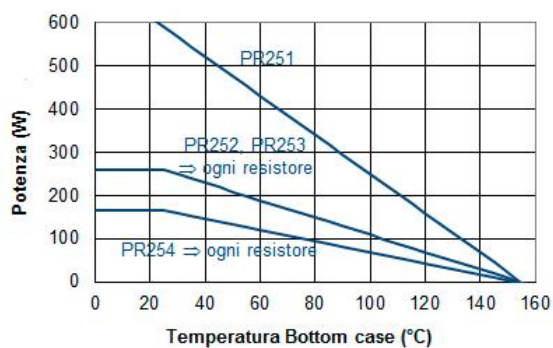
Rapporto Potenza / Volume elevatissimo
Montaggio e cablaggio facilitati con sensibili vantaggi di costo.
Intrinsecamente non induttive per applicazioni in alta frequenza.
Un solo modello per dissipare potenze fino a 500W.
Tutti i materiali sono conformi alla norma UL94-V0.



Connessioni e viti di fissaggio fornite con il resistore.
Tutte le dimensioni sono in mm


SPECIFICHE TECNICHE

- Potenza nominale: 250W (dissipatore a 100°C)
- Gamma valori: Da 1R0 a 1MΩ, serie E12
- Tolleranza: Standard 10%, fino a 1% su richiesta
- Coefficiente di temperatura: ± 100 ppm/°C
- Massima tensione di lavoro: 5000 Vac
- Temperatura di lavoro: Da -55°C a +155°C
- Rigidità dielettrica: 7000 Vac
- Resistenza di isolamento: $> 10^5$ MΩ a 500V
- Distanza di isolamento superficiale: 42 mm
- Distanza di scarica in aria: 16 mm
- Scariche parziali: < 10 pC @ 5000 Vac
- Induttanza: 80 nH
- Capacità parallela: 40 pF
- Capacità verso massa: < 120 pF
- Sovraccarico : $4 P_n \times 10$ secondi
- Resistenza termica: 0.15 °C/W
- Planarità del dissipatore: 0.05 mm Max
- Rugosità superficiale del dissipatore: 6.3 μ m Max
- Grasso termico: Indispensabile ad alta conducibilità $\lambda > 1$ W/mk
- Coppia fissaggio vite terminali: 2Nm (statico)
- Coppia fissaggio vite base: 2Nm (statico)
- Peso: 125 grammi

PR254 - Derating Potenza


THICK FILM POWER RESISTOR PR600

FEATURES

Very good ratio Power / Volume
 Easy mounting and wiring with significant cost advantages.
 Non inductive performance for high frequency applications.
 One models for power applications up to 600W.
 Suited to UL94-V0 application

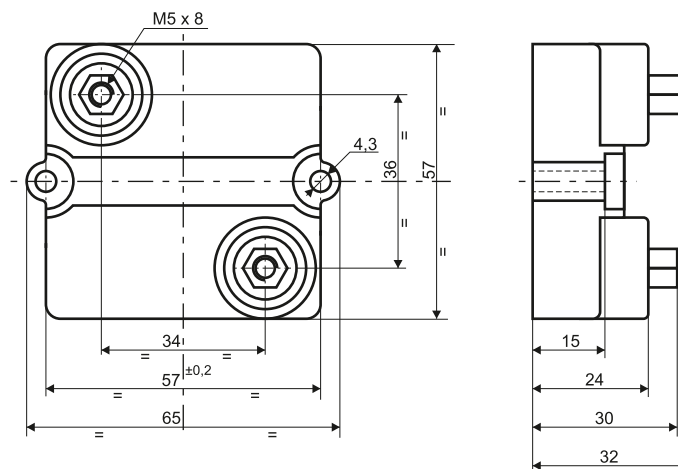
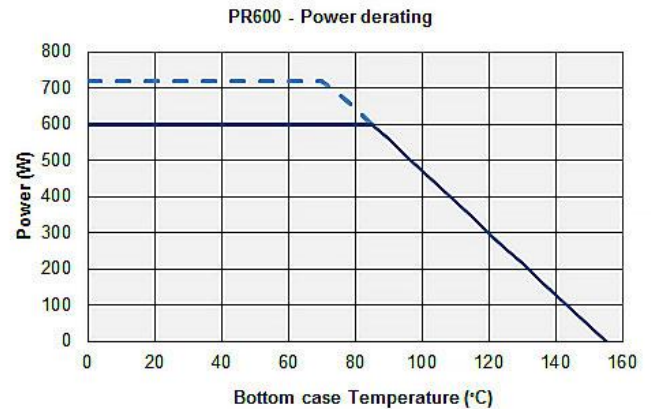


ELECTRICAL SPECIFICATIONS

Power rating: 600W @ 85°C Bottom case Temperature
 For power greater than 600W please consult Technical Dept.
Resistance Range: from 1R0 to 1M0
Resistance Values: E12 series
 For out of range or not std. values please contact ATE Electronics Technical Dept.

Tolerance: Standard ±10%.
 Available on request up to ±1%

Temperature coefficient: ±150 ppm/°C
Work Temperature Range: from -55°C to +155°C
Max Working Voltage: 5kV, $\sqrt{P \times R}$
Dielectric strength: 7kVac x 60"
Insulation resistance: > 10⁵ MΩ at 500V
Creep distance: 42mm
Air Gap distance: 16mm
Partial Discharge: < 10pC @ 5kVac
Self Inductance: 80nH
Parallel Capacitance: 40pF
Capacitance to heatsink: < 110pF
Overload: 1kW x 10"
Thermal resistance: 0,115°C/W
Heatsink flatness: 0,05mm max
Heatsink surface finish: 6,3µm max
Thermal grease: Required, λ > 1W/mK
Max Torque for contacts: 2Nm (static)
Max Torque for mounting: 2Nm (static)
Weight: 95g



"Connection and mounting screws are supplied with the resistor
 All dimensions are in mm"

PR800 Thick film power resistors

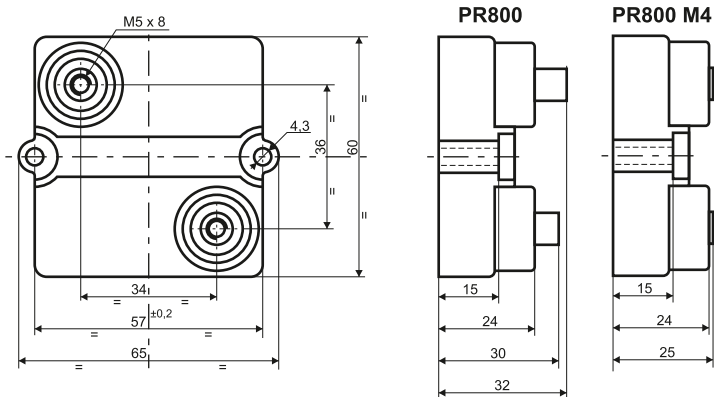

THICK FILM POWER RESISTOR PR800

FEATURES

Very good ratio Power / Volume
Easy mounting and wiring with significant cost advantages. Non inductive performance for high frequency applications. Materials are ULV94-V0 listed


ELECTRICAL SPECIFICATIONS

- Power rating: 800W @ 85°C Bottom case Temperature
For power greater than 800W please consult Technical Dept.
- Resistance Range: from 1R0 to 1M0-
- Resistance Values: E12 series
For out of range or not std. values, please contact ATE Electronics Technical Dept.
- Tolerance: Standard $\pm 10\%$.
- Temperature coefficient: $\pm 150\text{ppm}/^\circ\text{C}$
- Work Temperature Range: from -55°C to $+155^\circ\text{C}$
- Max Working Voltage: 5,2kV , $V = \sqrt{P \times R}$
- Dielectric strength: 7kVac x 60" (12kVac on request)
- Insulation resistance: $> 10^5 \text{ M}\Omega$ at 500V
- Creep distance: 42mm
- Air Gap distance: 16mm
- Partial Discharge: $< 10\text{pC}$ @ 5kVac
- Self Inductance: 80nH (typical)
- Parallel Capacitance: 40pF (typical)
- Capacitance to heatsink: 150pF (typical)
- Overload: 1kW x 10"
- Thermal resistance: 0,11°C/W
- Heatsink flatness: 0,05mm max
- Heatsink surface finish: 6,3 μm max
- Thermal grease: Required, $\lambda > 1\text{W/mK}$
- Max Torque for contacts: 2Nm (static)
- Max Torque for mounting: 2Nm (static)
- Weight: 100g



"Connection and mounting screws are supplied with the resistor
All dimensions are in mm"

