

FPA250 Thick Film Power Resistors **ARCOL**

Due to a Non-Inductive design these elements are ideally suited for high frequency and pulse load applications.

- Non Inductive Performance for HF Applications
- Power Applications 100W to 250W
- Very Good Power/Volume Ratio
- RoHS Compliant



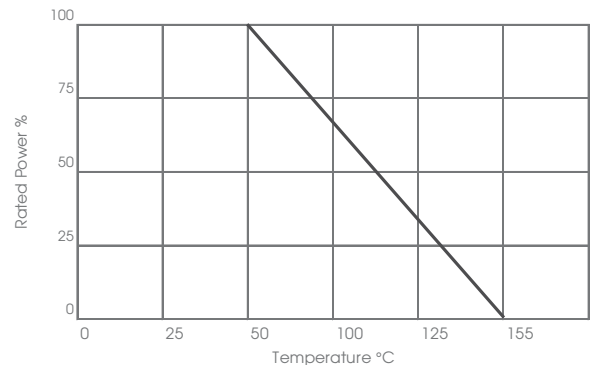
Characteristics

Power rating:	250W (heatsink at 50°C)	Partial discharge:	≤10pC / 5000Vac
Resistance range:	From 1R to 2M E6 Series	Typical inductance:	40nH typical
Tolerance (Code):	Standard J (±5%) and K (±10%) Also available F (±1%) on request	Parallel capacitance:	40pF
Temperature coefficient:	100ppm/°C	Capacitance/Mass:	≤120pF
Max working voltage:	5000Vac	Overload:	4Pn x 10 sec
Working temperature range:	-55°C to +155°C	Thermal resistance:	0.15°C/W
Dielectric strength:	7000Vac	Heatsink flatness:	0.05mm max
Insulation resistance:	≥ 10Gohm at 500V	Heatsink surface finish:	6.3 μm max
Creepage distance:	42mm min	Thermal grease:	Required
Air gap distance:	14mm	Max torque for contacts:	2Nm (static)
		Max torque for mounting:	1.8Nm (static)

Ordering Procedure

Standard Resistor Specify Series, Watts, Ohmic Value, Tolerance Code
e.g.: FPA250 10R J

Derating Curve



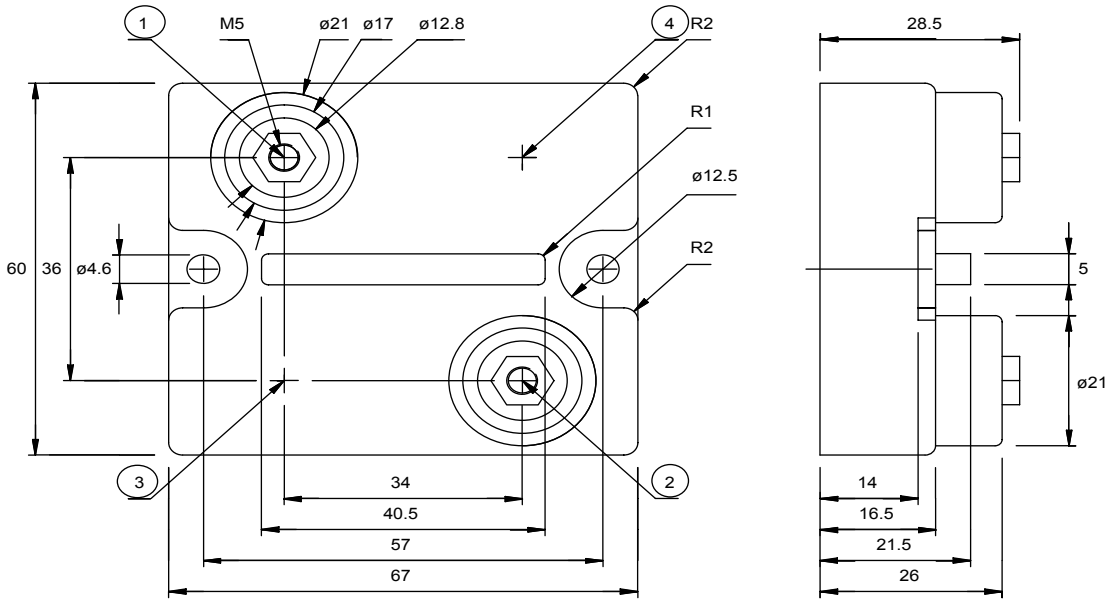
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The information contained herein does not form part of a contract and is subject to change without notice. Arcol operate a policy of continual product development, therefore, specifications may change.

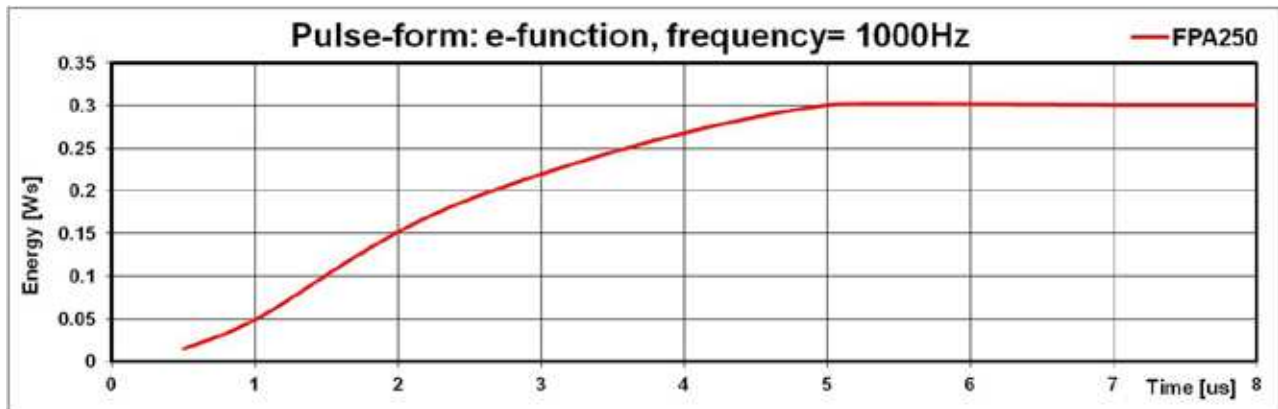
It is the responsibility of the customer to ensure that the component selected from our range is suitable for the intended application. If in doubt please ask Arcol.

Dimensions (mm)



Pulse rating

For pulse duration $>5.0 \mu\text{s}$, and at maximum allowed voltage levels, the maximum peak energy of 0.3J is limited by the average power rating of 250W. For pulse duration times $<5.0 \mu\text{s}$ it has not been possible to reliably establish maximum energy failure point, although it is known that the pulse capability is higher than the curve shown in the graph below.



Whilst these parts are designed to operate in high frequency circuits, where dv/dt is faster than $250\text{V}/\mu\text{s}$, it is recommended that the resistor is tested under worst case application conditions to ensure that unknown attribute of the application waveform are completely accounted for.

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