

FPA250 Thick Film Power Resistors



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



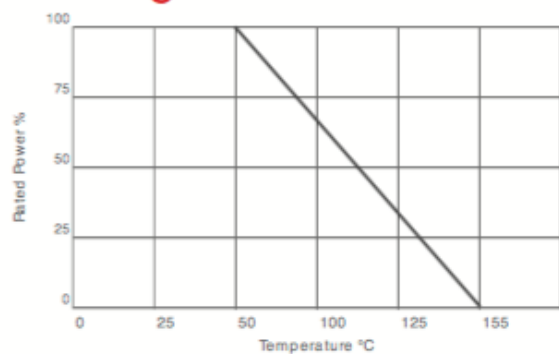
Characteristics

Power rating:	250W (heatsink at 50°C)	Typical inductance:	40nH typical
Resistance range:	From 1R to 2M E6 Series	Parallel capacitance:	≤40pF
Tolerance (Code):	Standard J (±5%) Also available F (±1%) on request	Capacitance/Mass:	≤110pF
Temperature coefficient:	100ppm/°C	Heatsink flatness:	0.05mm max
Max working voltage:	5k Vdc	Heatsink surface finish:	≤6.4 μm max
Working temperature range:	-55°C to +155°C	Thermal grease:	Required
Dielectric strength:	7kV	Max torque for contacts:	2Nm (static)
Insulation resistance:	≥ 10Gohm at 500V	Max torque for mounting:	1.8Nm (static)
Creepage distance:	42mm min		

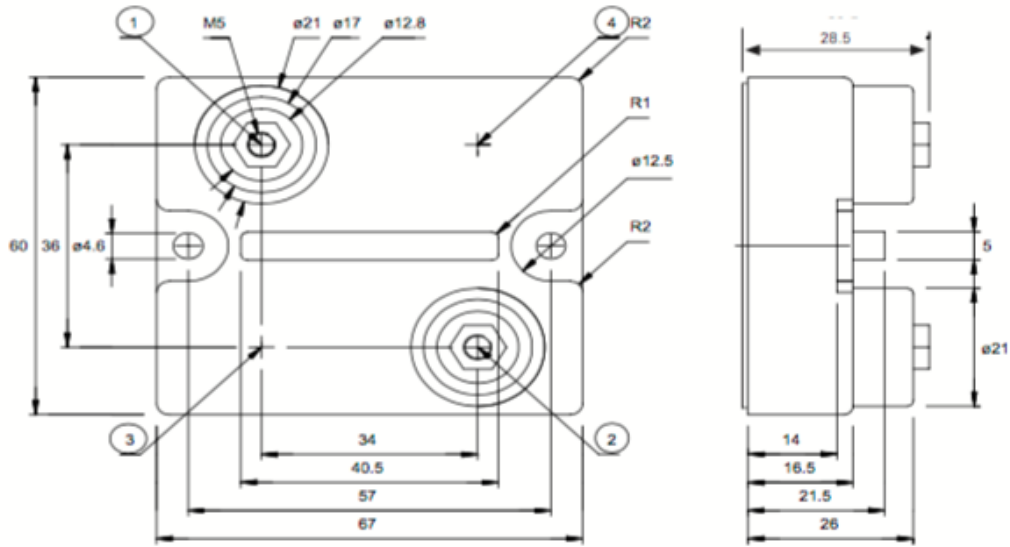
Ordering Procedure

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

Derating Curve

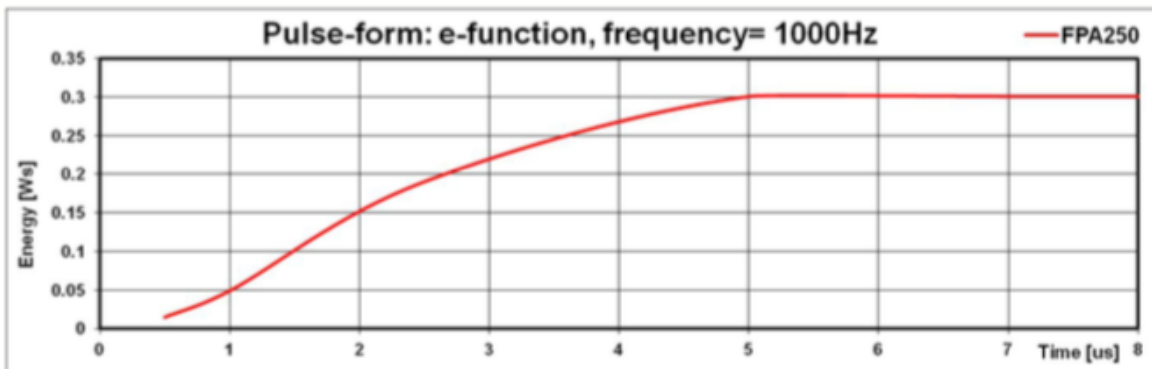


Dimensions (mm)



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.