

FPA250

Thick Film Power Resistors

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

FEATURES

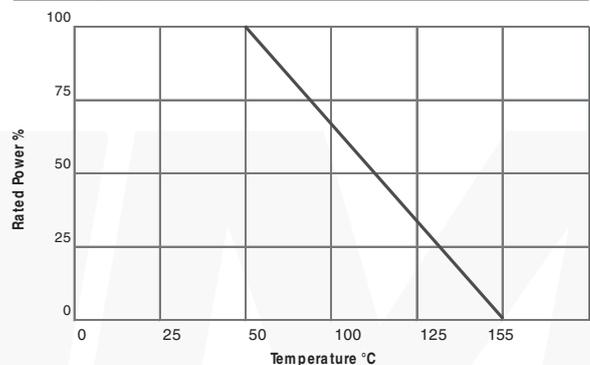
- Non Inductive Performance for HF Applications
- Power Applications 100W to 250W
- Very Good Power/Volume Ratio
- RoHS Compliant



CHARACTERISTICS

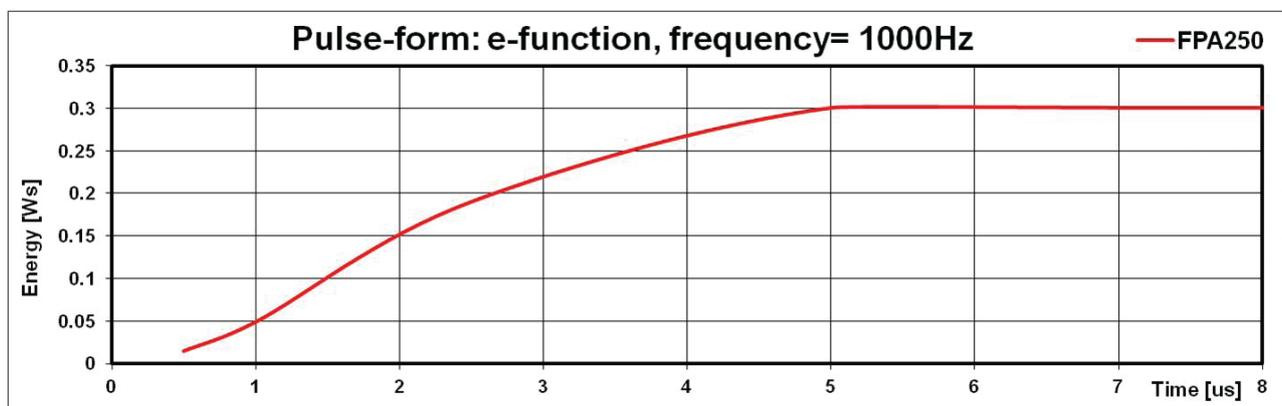
Power rating:	250W (heatsink at 50°C)
Resistance range:	From 1R to 2M E6 Series
Tolerance (Code):	Standard J ($\pm 5\%$) Also available F ($\pm 1\%$) on request
Temperature coefficient:	100ppm/°C
Max working voltage:	5k Vdc
Working temperature range:	-55°C to +155°C
Dielectric strength:	7kV
Insulation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

Derating Curve



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.

