

50W TO-220 HIGH POWER RESISTORS

Features

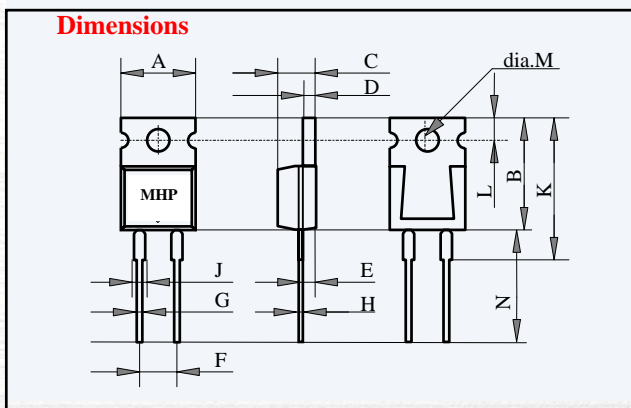
- Non-inductive, thin film technology.
- Thermally enhanced industry standard TO220 package.
- RoHS compliant.
- Low thermal resistance, 2.3 °C/W resistor hot spot to metal tab.
- Complete thermal flow design available for easy implementation.
- Superior vibration durability.
- Small thin package for high density PCB installation.

Applications

- High frequency circuits and wide band / linear amplifiers.
- Switch mode and industrial RF power sources.
- AC motor control, electronic load and drive circuits.
- Automotive.
- Industrial PC modules (IPM) and measurement systems.



Specification

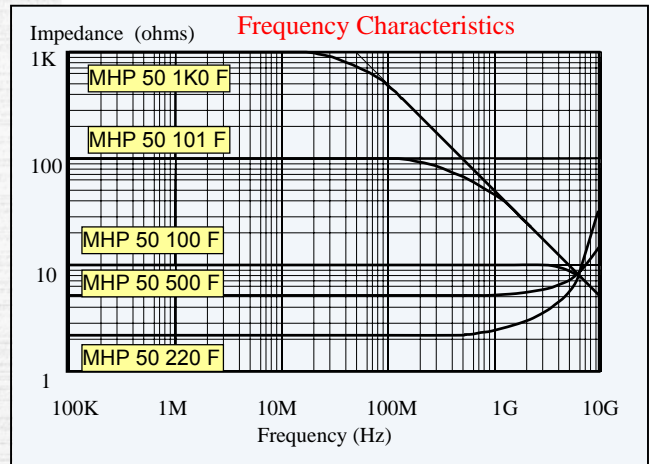
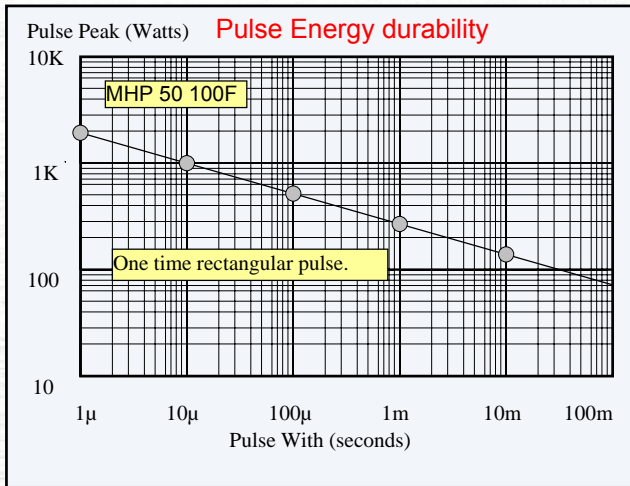
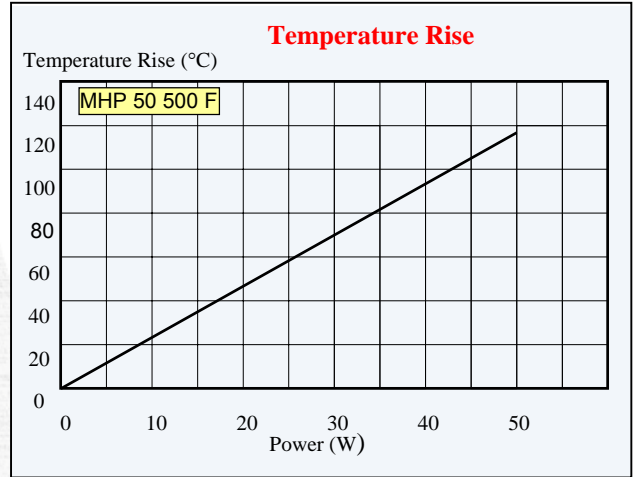
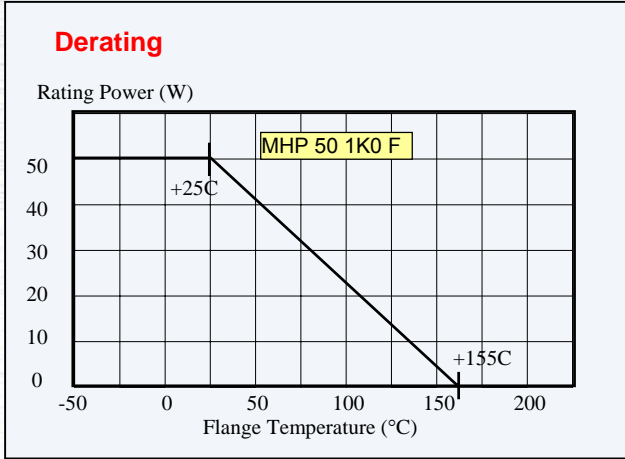


A	B	C	D	E	F	G	H	J	K	L	M	N
10.6	15.0	4.5	1.5	2.7	5.08	0.75	0.5	1.5	19.0	2.7	3.6	15.0

Specification

Item	Specifications			Test Conditions
Power Rating	50 Watt			-55 to 25 °C flange temperature
Power Rating	2.25 Watt			Free air @ 25°C
Thermal Resistance	2.3 °C/W			Hot spot to Tab
Resistance Range	0.01-0.09 Ω	0.1-9.1 Ω	10-220 Ω	Up to 51 KΩ also available
Nominal Resistance Series	E6	E12	E24	2.5 Ω and 5.0 Ω also available
TCR	250 ppm/°C	100 ppm/°C	50 ppm/°C	-55 to +155 °C
Tolerance	+/- 5% (J)	+/-1% (F) & 5% (J)	+/-1% (F)	
Operation Temp. Range	-55°C to+155°C			
Max. Operating Voltage.	500V or $\sqrt{P \cdot R}$			
Dielectric Withstand Voltage	2000 Volts DC			60 seconds.
Load Life	ΔR +/- (1.0 % + 0.05 Ω)			25°C, 90 min.ON, 30 min.OFF, 1000hours.
Humidity	ΔR +/- (1.0 % + 0.05 Ω)			40°C, 90-95% RH, DC 0.1W, 1000hours.
Temp. Cycle	ΔR +/- (0.25 % + 0.05 Ω)			-55 °C, 30 min., +155 °C, 30 min., 5 cycles
Soldering Heat (Max)	ΔR +/- (0.1 % + 0.05 Ω)			250 +/- 5 °C, 3 seconds,
Solderability	Over 95% of surface			230 +/- 5 °C, 3 seconds.
Insulation Resistance	Over 1,000 MΩ			Between terminals and tab.
Vibration	ΔR +/- (0.25 % + 0.05 Ω)			

Note: For resistances from 220 to 51k Ω the power rating shall be restricted to 30W.



Notes:

- (1) Electrically isolated metal tab.
- (2) Recommend the use of thermal grease between metal tab and heat sink.
- (3) Thermal design should account for a thermal resistance between resistor and tab of 2.3°C/W and a maximum resistor temperature of 155°C.
- (4) Current rating: 25A maximum.
- (5) Surface mount package also available, please call factory.

Ordering Information

