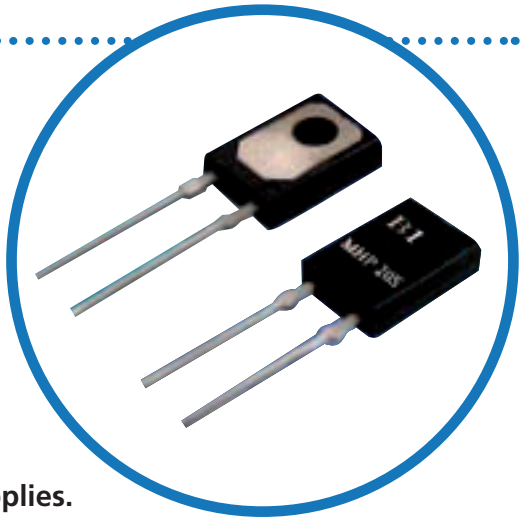
20W TO126
High Power Resistors

MHP 20 S



- **Non-Inductive, Small, 20 Watt high power resistor.**
- **TO-126 style package offering a very low thermal resistance of 5.9 °C/W.**
- **Complete thermal flow design available for easy implementation.**
- **Superior vibration durability.**
- **Small thin package for high density PCB installation.**
- **RoHS compliant**

Applications

- **High frequency emitter resistors in switching power supplies.**
- **High precision CRT color video amplifiers.**
- **High frequency snubber and pulse handling circuits.**
- **VHF amplifiers.**
- **Pulse generator load resistors.**

Specifications

Items	Specification			Conditions
Power Rating	20 Watts			@ Tab Temp < 25°C
Power Rating	1 Watts			Free air.
Thermal Resistance	5.9°C/W			From hot spot to tab.
Resistance Range	0.01-0.09 Ω	0.1-9.1 Ω	10-220 Ω	Extended resistance range to 51KΩ available
Nominal Resistance Series	E6	E24	E24	Additional 2.0Ω and 5.0 Ω also available
TCR	250 ppm/°C	100 ppm/°C	50 ppm/°C	For -55 to +155°C
Tolerance	+/-5%	+/- 5% and 1%	+/- 1%	
Operation Temp. Range	-55 to +155 °C			
Dielectric Withstand Voltage	2000 Volts DC			60 seconds. between terminals and flange
Load Life	ΔR +/- (1.0 %+0.05 Ω)			25°C, 90 min. ON, 30 min.OFF, 1000 hours.
Humidity	ΔR +/- (1.0 %+0.05 Ω)			60°C, 90-95% RH, DC 0.1W, 1000 hours.
Soldering Heat (Max)	ΔR +/- (1.0 %+0.05 Ω)			250+/-5°C, 3 seconds,
Solderability	Min 95% coverage			230+/-5°C, 3 seconds.
Insulation Resistance	Over 1000 MΩ			Between terminals and metal back plate.
Vibration	ΔR +/- (0.25 % Ω)			

Specifications subject to change without notice

Note:
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 5.9°C/W and a maximum resistor temperature of 155°C.
4. Current rating: 25A maximum.
5. For the resistance range 220Ω to 51KΩ, the power rating is restricted to 10W.

General Note
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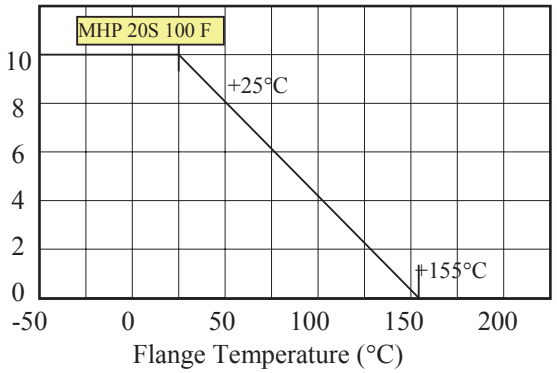
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Electrical Performance

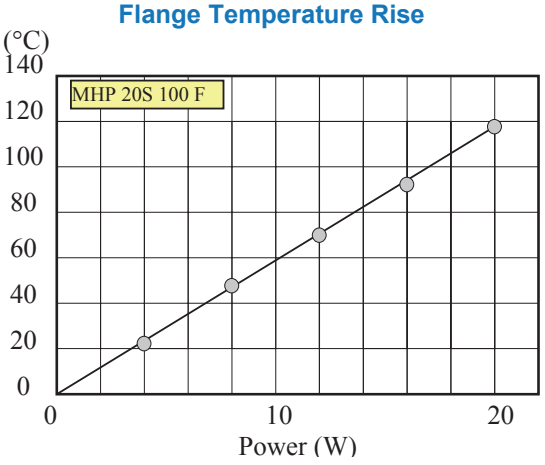
Electrical Performance

Derating Curve

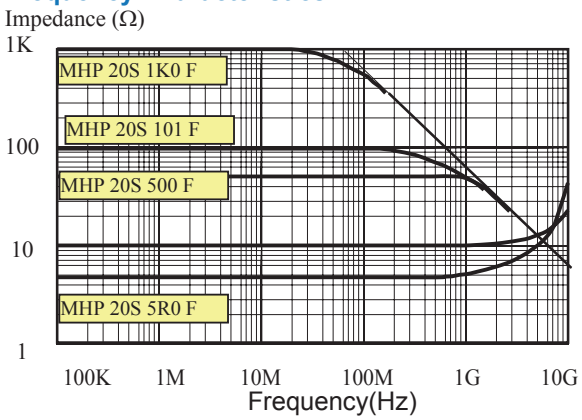
Rating Power (W), with 2.8°C/W heat sink.



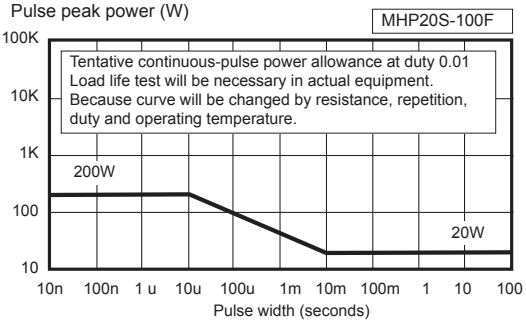
Flange Temperature Rise



Frequency Characteristics



Pulse Energy Durability



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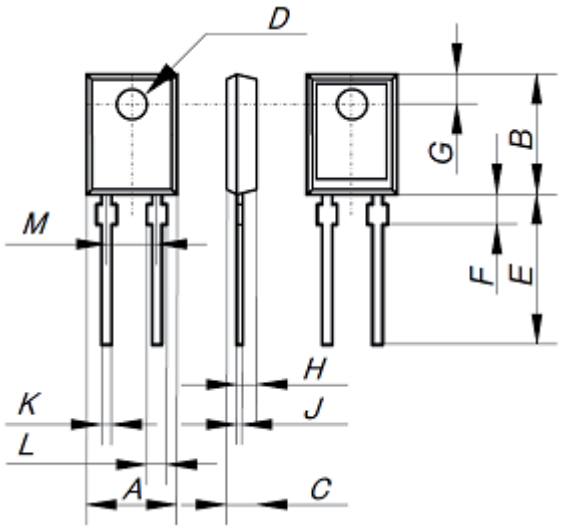
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20W TO126 High Power Resistors

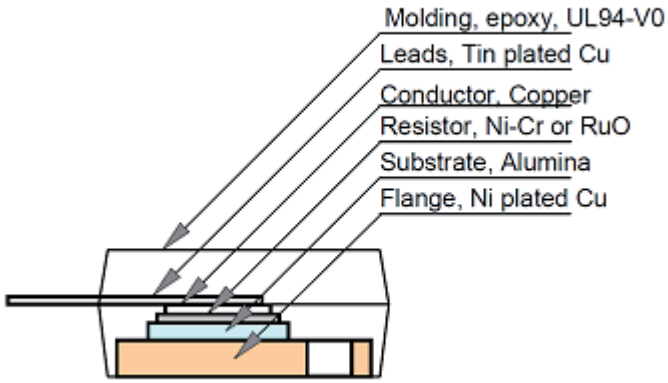
MHP 20 S

Dimensions



	MHP100	
	mm	± mm
A	8.5	± 0.2
B	12.0	± 0.2
C	3.1	± 0.2
D	3.1	± 0.1
E	17.0	± 1.0
F	3.2	± 0.5
G	3.8	± 0.2
H	1.75	± 0.1
J	0.5	± 0.05
K	0.6	± 0.05
L	1.4	± 0.05
M	5.08	± 0.1

Materials



Resistor is electrically isolated from flange

Ordering Information

MHP 20S 500 F

Model

Power Rating
0.1Ω : 0R100
50 Ω : 500 First two digits significant, last digit: number of trailing zeros

Tolerance
J = 5% Tol
F = 1% Tol

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