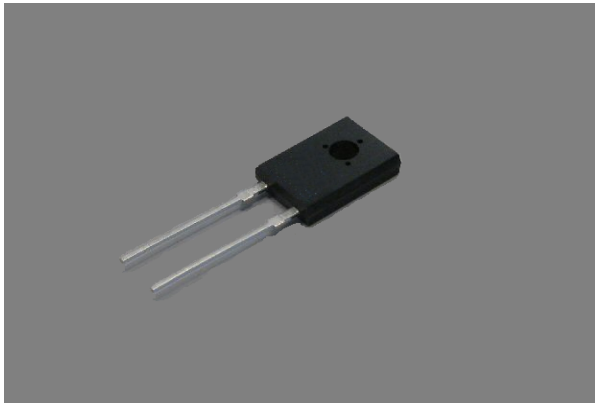


20W HIGH POWER RESISTORS



TO126 HPR2S



Features :

- Non-inductive 20W high power resistor in TO126 package.
- Very low heat resistance of 5.9 degree C/W.
- Heat dissipation and vibration durable design.
- Small and thin package for high-density assembly.

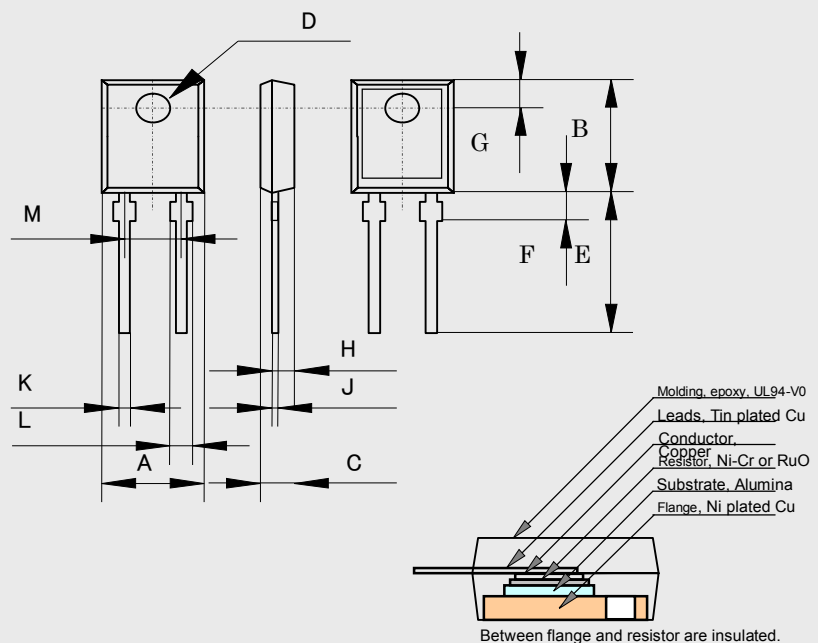
Applications:

Non-inductive design suits high frequency applications and high-speed pulse circuits.

• UPS, power unit of machines, motor control, drive circuits, automotive, measurements, industrial computers and high frequency electronics.

Structure and Dimensions (mm) :

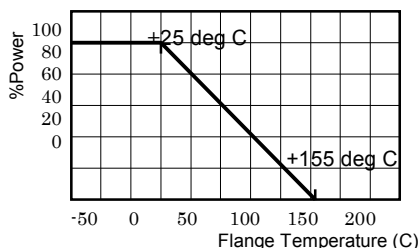
HPR2S		
	mm	+/-mm
A	8.5	+/-0.2
B	12.0	+/-0.2
C	3.1	+/-0.2
D	3.1	+/-0.1
E	17.0	+/-1.0
F	3.2	+/-0.5
G	3.8	+/-0.2
H	1.75	+/-0.1
J	0.5	+/-0.05
K	0.6	+/-0.05
L	1.4	+/-0.05
M	5.08	+/-0.1



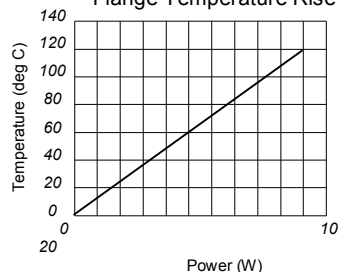
Specifications:

Rating Power	20 W			At flange temperature of -55 deg C to +25 deg C
Rating Power	1 W			Free air (without heat sink).
Hear resistance	5.9 deg C/W			From hot spot to flange.
Resistance Range	0.022-0.068Ω	0.1-9.1Ω	10-51KΩ	Note 2.
Nominal Resistance	E6	E24	E24	Includes 2.5, 4.0, 5.0, 8.0
TCR, ppm/deg C	+/-250	+/-100	+/-50	Note 3
Tolerance	+/-5%(J)	+/- 5%(J)	+/-1%(F), 5%(J)	-
Capacitance	1.00 pF			Equivalent parallel capacitance.
Inductance	8.22 nH			Equivalent series inductance
Operation Temp. Range	-55 deg C to +155deg C			-
Max. Operation Voltage	smaller value either 500V or $\sqrt{P \cdot R}$			P: rating power R: resistance
Withstanding Voltage	2000 Volt AC			60 seconds, 1mA, between terminals and flange.
Load Life	+/-1.0 %			25 deg C, 90 min.ON, 30min.OFF, 1000hours.
Humidity	+/-1.0 %			40 deg C, 90 to 95%RH, DC0.1W, 1000hours.
Soldering Heat	+/-1.0 %			350+/-5 deg C, 3seconds,
Solder ability	Over 95 % of surface			230+/-5 deg C, 3seconds.
Insulation Resistance	Over 1000 Meg ohm			Between terminals and flange.
Vibration	+/-0.25 %			IEC60068-2-6, see note 4
Weight	0.9 grams			-

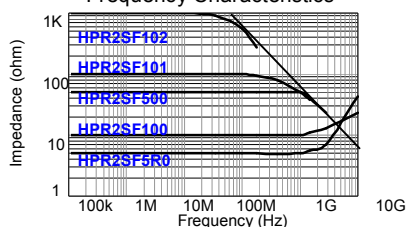
Power Derating



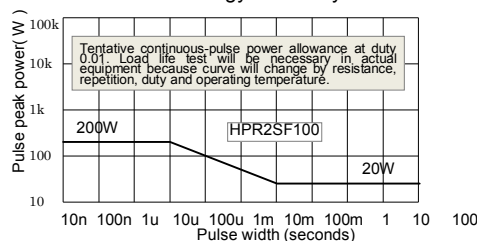
Flange Temperature Rise



Frequency Characteristics



Pulse Energy Durability



Ordering information

Model	Tolerance	Resistance Value	Packaging
HPR2S	F	100	S
HPR2S	J(5%)	R022-513	S (Tube)
	F(1%)		

Note:

- Insulation material is unnecessary between flange and heat-sink, because flange and resistor are separated by alumina insulated substrate. When mounting resistor on heat sink, screw, clip and pressure strip with using heat conduction grease on back side of resistor are recommended. Recommended screw torque is 0.5-0.6Nm.
- Resistance measurement shall be made at a point 5.27mm +/-0.6 mm from the resistor body.
- TCR of low resistance will be increased as 300ppm/0.02ohm, 200ppm/0.05ohm, 140ppm/0.1ohm and 80ppm/0.2ohm typically. Testing point is at 5.27mm from bottom of molding of terminals.
- Test method is IEC60068-2-6, and specification is sine sweep wave form, 100Hz-2000Hz, 10 cycles, amplitude 0.75mm or 100m/s², 90minutes. direction x-y-z, Amplitude 0.75mm will be applied under break point Frequency (about 60Hz) and 100m/s² over break point
- When mounting resistor on heat-sink by screw, clip and pressure strip with using heat conduction grease on back side of resistor are recommended. Recommended screw torque is 0.5-0.6Nm.

This specification is subject to change without notice. Please contact below for the technical support and latest specifications:

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