

POWER THICK FILM ON STEEL RESISTORS TO126, TO220, and TO247, 25 to 100 WATT

HDP SERIES



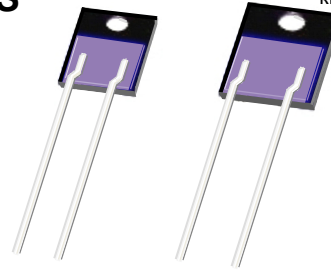
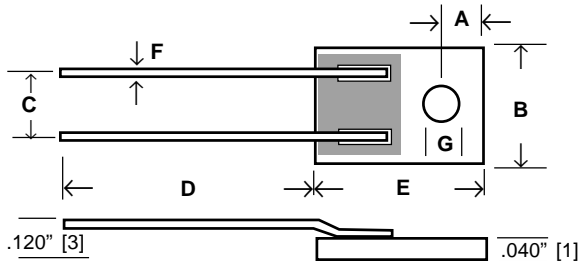
Term. W is
RoHS
compliant
& 260°C
compatible

FEATURES

- Industry's most economical TO-style power resistors!
- Standard resistance range: 0.05Ω to 10KΩ
- Standard tolerance: ±1%, ±2%, ±5% (available to 0.1%)
- Flame resistant construction
- Non-Inductive performance
- Resistor is electrically isolated from the mounting surface

OPTIONS

- Option P: Increased pulse capability
- Option EQ: 24-hour burn-in at full rated wattage (free air)
- Option 33: 1KV Dielectric Stength
- Numerous design modifications are available (special marking, custom lead wires, hi-rel screening, etc). Customized components are an RCD specialty!



Award winning design! High power density at low prices!

RCD Series HDP resistors were designed to offer precision performance in TO-126, TO-220 and TO-247 style packages. The cost effective design features an oxidized stainless steel carrier which is insulated with a proprietary hi-temp dielectric upon which the resistive film and solder pads are deposited. This enables reduced thermal resistance over conventional ceramic or ceramic/copper sandwich designs, resulting in increased power and overload capability (pulse graph available). The resistive film is insulated with a specialty flame resistant coating offering superior environmental protection.

TYPICAL PERFORMANCE CHARACTERISTICS

Load Life	±1%
Moisture Res.(Mil-Std-202 M106)	±0.5%
Thermal Shock (Mil-Std-202, Method 107 Cond.C)	±0.3%
Overload (2x W, 1Sec, nte1.5x Max V)	±0.3%
Terminal Pull Strength	5 lbs direct, 2 lbs peel
Temp.Coefficient 0.5Ω & above 0.05Ω 0.49Ω	100ppm (50& 80ppm opt.) 200ppm (100ppm opt.)
Dielectric Strength ¹	750V Std. (Opt.33= 1KV)
Insulation Resis. ¹	1000M min.
Operating Temperature Range	-55°C to +200°C

¹ Between two terminals and mounting surface, DCV

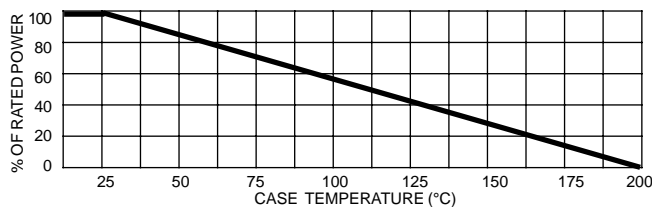
SPECIFICATIONS

RCD Type	Wattage @ 25°C	Max. Voltage	Resistance Range	DIMENSIONS Inch [mm]						
				A	B	C	D	E	F Typ.	G Typ.
HDP126	25W (2W free air)	300V ³	0.05Ω - 10K ³	.091±.01 [2.3±.25]	.323±.012 [8.2±.3]	.200±.012 [5.08±.3]	.940 Min. [24]	.465±.012 [11.8±.3]	.031 [.8]	.098 [2.5]
HDP220S ²	40W (2.5W free air)	300V ³	0.05Ω - 10K ³	.117±.01 [3±.25]	.400±.012 [10.16±.3]	.200±.012 [5.08±.3]	0.5 Min. [12.7]	.600±.012 [15.24±.3]	.031 [.8]	.142 [3.6]
HDP220	50W (3W free air)	300V ³	0.05Ω - 10K ³	.117±.01 [3±.25]	.425±.012 [10.8±.3]	.200±.012 [5.08±.3]	.940 Min. [24]	.650±.012 [16.5±.3]	.031 [.8]	.118 [3]
HDP247	100W (5W free air)	350V ³	0.05Ω - 10K ³	.156±.01 [4±.25]	.630±.012 [16.0±.3]	.400±.012 [10.16±.3]	.940 Min. [24]	.820±.012 [20.8±.3]	.031 [.8]	.142 [3.6]

² Information on HDP220S is preliminary ³ Extended range available

POWER RATING

Power rating is based on the resistor being tightly screwed to a suitable heat sink (with thermal compound) to limit hot spot case temperature to 200°C. Derate wattage by .57%/°C above 25°C (as depicted in chart below). Mounting torque not to exceed 8 in-lbs. Request Applic.Guide R-34 for additional information concerning heat-sink resistor mounting guidelines.



P/N DESIGNATION:

