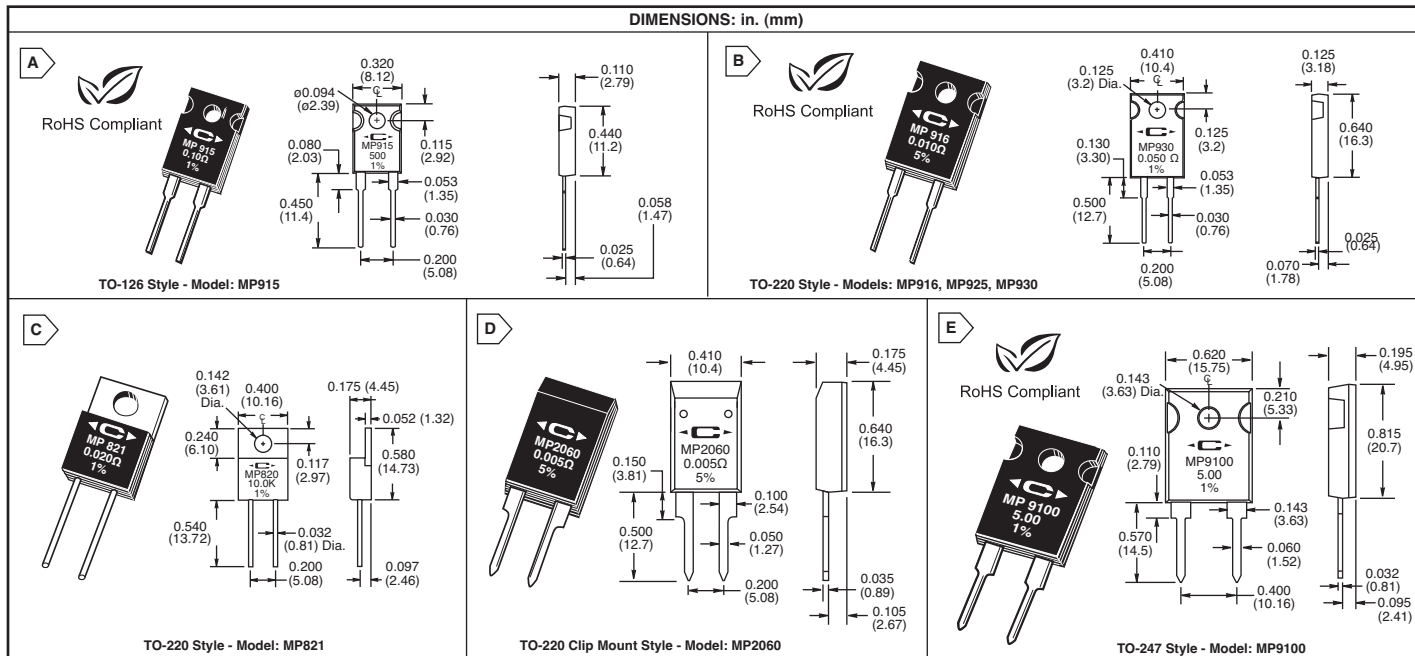


CADDOCK 15W-100W Power Film Resistors



Power Resistors Caddock

MP SERIES

Non-Inductive, Heat Sink Mount TO-126, TO-220, and TO-247 Packages

Features:

- Non-Inductive Design, Ideal for Power Switching Circuits, Snubbers, RF Applications: 50Ω performance up to 500 MHz.
- Values as low as 0.005Ω ideal for Current Sensing in Power Supplies, Motor Controls, and Battery Charging Circuits
- Resistor Element Electrically Isolated from the Ceramic Heat Dissipating Mounting Surface (1500 V ACrms)
- 1% Tolerance for most resistance values

* Power Ratings are based on +25°C Case Temp.:

The case temp. is used to establish the max. applied power, see Derating Curve. The case temp. measurement is made with a thermocouple contacting the bottom mounting surface of the package (center of heat dissipating ceramic), the device mounted on the heat sink with thermal grease. See Mounting Note.

Without a Heat Sink:

When in free air at +25°C the MP Series have the following power ratings:

- MP915: 1.25 W MP916, MP925, MP930: 2.25 W
- MP2060: 2.5 W MP9100: 3.5 W

Mounting Note:

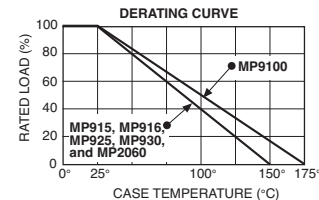
Mount on a smooth, clean, and flat heat sink surface with a thermal interface material such as thermal grease. The entire exposed ceramic area must be in contact with the heat sink. For additional technical information please refer to the Caddock Applications Notes for the MP Series available online at www.caddock.com.

Screw Mounting:

The use of a compression washer (Belleville type) is recommended. The compression washer must provide a force of 150 to 300 lbs. Recommended mounting torque is 6 in.-lbs. Maximum mounting torque to avoid damage to the package is 8 in.-lbs.

Clip Mounting:

Recommended Clip Force is 8 to 35 lbs applied to the center of the package. The clip should be smooth to avoid any point concentrations of pressure.



0.005	0.2	10	100	5K
0.01	0.5	20	200	10K
0.02	1	25	500	20K
0.05	2	50	1K	50K
0.1	5	75	2K	100K

Temperature Coefficient:

MP915, MP916, MP925, MP930:

- ΔR taken at +150°C, ref to +25°C
- 0.50Ω to 100K: -20 to +80 ppm/°C
- 0.050Ω to 0.49Ω: 0 to +200 ppm/°C
- 0.020Ω to 0.049Ω: 0 to +300 ppm/°C
- 0.010Ω to 0.019Ω: 0 to +500 ppm/°C

MP2060:

- ΔR taken at +150°C, ref to +25°C
- 0.50Ω to 100K: -20 to +80 ppm/°C
- 0.050Ω to 0.49Ω: 0 to +100 ppm/°C
- 0.015Ω to 0.049Ω: 0 to +200 ppm/°C
- 0.005Ω to 0.014Ω: 0 to +300 ppm/°C

MP821, MP820:

- ΔR taken at +175°C, ref to +25°C
- 5.00Ω to 10K: -20 to +50 ppm/°C
- 0.50Ω to 4.99Ω: -20 to +80 ppm/°C
- 0.050Ω to 0.49Ω: 0 to +200 ppm/°C
- 0.020Ω to 0.049Ω: 0 to +300 ppm/°C

MP9100:

- ΔR taken at +175°C, ref to +25°C
- 0.50Ω to 100Ω: -20 to +80 ppm/°C
- 0.050Ω to 0.49Ω: 0 to +100 ppm/°C

For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	Caddock Part No.	Case Style	Fig.	*Power Rating	Thermal Res. (Film to Case)	Max. Operating Voltage ACrms	Ohm Range (See Table of Stocked Values)	Tol.	Price Each			
									1	10	25	50
684-MP915-Value	MP915-Value-Tol.	TO-126	A	15 W	8.33°C/W	Power Limited	0.02	5%	4.69	3.75	3.47	3.28
			A	15 W	8.33°C/W	Power Limited	0.05	1%	4.69	3.75	3.47	3.28
			A	15 W	8.33°C/W	Power Limited	0.1 to 0.5	1%	3.45	2.76	2.54	2.41
			A	15 W	8.33°C/W	200 V	1 to 5	1%	3.27	2.62	2.41	2.29
			A	15 W	8.33°C/W	200 V	10 to 1K	1%	2.98	2.34	2.16	2.04
684-MP916-Value	MP916-Value-Tol.	TO-220	B	16 W	7.81°C/W	Power Limited	0.01	5%	7.26	5.80	5.37	5.08
			C	20 W	7.5°C/W	Power Limited	0.02 to 0.05	1%	9.45	7.56	6.99	6.61
684-MP821-Value	MP821-Value-Tol.	TO-220	C	20 W	7.5°C/W	Power Limited	0.1 to 0.5	1%	8.92	7.14	6.60	6.24
			C	20 W	7.5°C/W	300 V	1.0 to 5	1%	7.20	5.76	5.33	5.04
			C	20 W	7.5°C/W	300 V	10 to 10K	1%	5.92	4.72	4.37	4.14
684-MP820-Value	MP820-Value-Tol.	TO-220	C	20 W	7.5°C/W	300 V	10 to 10K	1%	3.72	2.98	2.75	2.61
684-MP925-Value	MP925-Value-Tol.	TO-220	B	25 W	5.0°C/W	500 V	5K to 100K	1%	3.72	2.98	2.75	2.61
684-MP930-Value	MP930-Value-Tol.	TO-220	B	30 W	4.17°C/W	Power Limited	0.02	5%	5.99	4.79	4.42	4.19
			B	30 W	4.17°C/W	Power Limited	0.05	1%	5.99	4.79	4.42	4.19
			B	30 W	4.17°C/W	Power Limited	0.1 to 0.5	1%	4.36	3.49	3.23	3.05
			B	30 W	4.17°C/W	250 V	1 to 5	1%	4.16	3.33	3.08	2.92
			B	30 W	4.17°C/W	250 V	10 to 2K	1%	3.72	2.98	2.75	2.61
684-MP2060-Value	MP2060-Value-Tol.	TO-220 Clip	D	18 W	6.94°C/W	Power Limited	0.005	5%	9.91	7.92	7.32	6.93
			D	36 W	3.47°C/W	Power Limited	0.01	2%	9.91	7.92	7.32	6.93
			D	60 W	2.08°C/W	Power Limited	0.02 to 0.05	1%	9.91	7.92	7.32	6.93
			D	60 W	2.08°C/W	Power Limited	0.1 to 0.5	1%	8.83	7.06	6.53	6.18
			D	60 W	2.08°C/W	250 V	1 to 5	1%	7.55	6.04	5.59	5.29
			D	60 W	2.08°C/W	250 V	10 to 1K	1%	6.31	5.04	4.66	4.42
684-MP9100-Value	MP9100-Value-Tol.	TO-247	E	100 W	1.50°C/W	Power Limited	0.05	1%	12.84	10.27	9.49	8.99
			E	100 W	1.50°C/W	Power Limited	0.1 to 0.5	1%	12.22	9.80	9.05	8.57
			E	100 W	1.50°C/W	Power Limited	1 to 5	1%	11.29	9.04	8.36	7.91
			E	100 W	1.50°C/W	Power Limited	10 to 20	1%	10.35	8.28	7.66	7.25
			E	100 W	1.50°C/W	Power Limited	25 to 100	1%	9.40	7.33	6.95	6.57