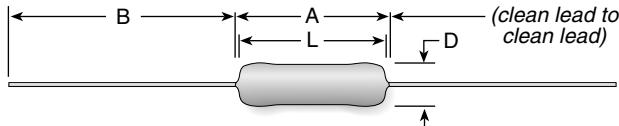


# PowrFilm®

**Metal Alloy Film Resistors  
5% Tolerance  
Available in E24 Ohmic Values**



PowrFilm resistors offer a major advantage over comparable metal film, carbon composition and fiberglass core wire types: A high power-to-size ratio. The PF1 can dissipate 1.0 watt in a size comparable to a 0.25 watt resistor and 3 watts in a package smaller than a comparable 1 watt unit.

PowrFilm is a high quality resistor constructed with a metal film alloy deposited on a high grade ceramic body. A non-flammable coating provides for environmental and electrical protection.

PowrFilm resistors are

an excellent choice for large volume, cost-sensitive applications requiring a high quality resistor that approaches the initial accuracy and long term stability of wirewound resistors.

## FEATURES

- High power-to-size ratio.
- Economical.
- Endures continuous full loading with very little change in value over time.
- Excellent resistors where compact, space saving resistors are required.
- 24 Values per decade.
- RoHS compliant product available Jan. 2006 Add "E" suffix to part number to specify.

## SPECIFICATIONS

### Material

**Coating:** Non-flammable lacquer.

**Core:** High grade ceramic.

**Terminals:** Solder-coated copper lead.

**Derating:** Linearly from 100% @ +70°C to 0% @ +155°C.

### Electrical

**Tolerance:** ±5%.

**Temperature coefficient:** ±250 ppm/°C.

**Dielectric withstand voltage:** 500 VAC

Series	Wattage	Ohms	Length	Dimensions (in. / mm)		Voltage	Hot spot max.	Lead ga.
				Diam.	Dim. A			
PF1	1	1.0-1M	0.256 / 6.5	0.100 / 2.5	0.315 / 8.0	1.1 / 27.9	350	205°C 22
PF2	2	1.0-1M	0.394 / 10	0.154 / 3.9	0.433 / 11	1.0 / 25.4	500	220°C 20
PF3	3	1.0-1M	0.657 / 17	0.205 / 5.2	0.704 / 18	1.5 / 38.1	750	250°C 20

## STANDARD PART NUMBERS FOR STANDARD RESISTANCE VALUES

Ohmic value	Wattage								
Part No. Prefix ▶ Suffix ▼	PF1J — 1.0 PF2J — 2.0 PF3J — 3.0	Part No. Prefix ▶ Suffix ▼	PF1J — 1.0 PF2J — 2.0 PF3J — 3.0	Part No. Prefix ▶ Suffix ▼	PF1J — 1.0 PF2J — 2.0 PF3J — 3.0	Part No. Prefix ▶ Suffix ▼	PF1J — 1.0 PF2J — 2.0 PF3J — 3.0	Part No. Prefix ▶ Suffix ▼	PF1J — 1.0 PF2J — 2.0 PF3J — 3.0
1 — 1R0	✓ ✓ ✓	18 — 18R	✓ ✓ ✓ ✓	350 — 350	✓ ✓ ✓	5,600 — 5K6	✓ ✓ ✓	110,000 — 110K	✓ ✓ ✓
1.1 — 1R1	✓ ✓ ✓	20 — 20R	✓ ✓ ✓ ✓	360 — 360	✓ ✓ ✓	6,200 — 6K2	✓ ✓ ✓	120,000 — 120K	✓ ✓ ✓
1.2 — 1R2	✓ ✓ ✓	22 — 22R	✓ ✓ ✓ ✓	390 — 390	✓ ✓ ✓	6,800 — 6K8	✓ ✓ ✓	130,000 — 130K	✓ ✓ ✓
1.3 — 1R3	✓ ✓ ✓	24 — 24R	✓ ✓ ✓ ✓	430 — 430	✓ ✓ ✓	7,500 — 7K5	✓ ✓ ✓	150,000 — 150K	✓ ✓ ✓
1.5 — 1R5	✓ ✓ ✓	27 — 27R	✓ ✓ ✓	470 — 470	✓ ✓ ✓	8,200 — 8K2	✓ ✓ ✓	160,000 — 160K	✓ ✓ ✓
1.6 — 1R6	✓ ✓ ✓	30 — 30R	✓ ✓ ✓ ✓	510 — 510	✓ ✓ ✓	9,100 — 9K1	✓ ✓ ✓	180,000 — 180K	✓ ✓ ✓
1.8 — 1R8	✓ ✓ ✓	33 — 33R	✓ ✓ ✓ ✓	560 — 560	✓ ✓ ✓	10,000 — 10K	✓ ✓ ✓	200,000 — 200K	✓ ✓ ✓
2 — 2R0	✓ ✓ ✓	36 — 36R	✓ ✓ ✓ ✓	620 — 620	✓ ✓ ✓	11,000 — 11K	✓ ✓ ✓	220,000 — 220K	✓ ✓ ✓
2.2 — 2R2	✓ ✓ ✓	39 — 39R	✓ ✓ ✓ ✓	680 — 680	✓ ✓ ✓	12,000 — 12K	✓ ✓ ✓	240,000 — 240K	✓ ✓ ✓
2.4 — 2R4	✓ ✓ ✓	43 — 43R	✓ ✓ ✓ ✓	750 — 750	✓ ✓ ✓	13,000 — 13K	✓ ✓ ✓	270,000 — 270K	✓ ✓ ✓
2.7 — 2R7	✓ ✓ ✓	47 — 47R	✓ ✓ ✓ ✓	820 — 820	✓ ✓ ✓	15,000 — 15K	✓ ✓ ✓	300,000 — 300K	✓ ✓ ✓
3 — 3R0	✓ ✓ ✓	51 — 51R	✓ ✓ ✓ ✓	910 — 910	✓ ✓ ✓	16,000 — 16K	✓ ✓ ✓	330,000 — 330K	✓ ✓ ✓
3.3 — 3R3	✓ ✓ ✓	56 — 56R	✓ ✓ ✓ ✓	1,000 — 1K0	✓ ✓ ✓	18,000 — 18K	✓ ✓ ✓	360,000 — 360K	✓ ✓ ✓
3.6 — 3R6	✓ ✓ ✓	62 — 62R	✓ ✓ ✓ ✓	1,100 — 1K1	✓ ✓ ✓	20,000 — 20K	✓ ✓ ✓	390,000 — 390K	✓ ✓ ✓
3.9 — 3R9	✓ ✓ ✓	68 — 68R	✓ ✓ ✓ ✓	1,200 — 1K2	✓ ✓ ✓	22,000 — 22K	✓ ✓ ✓	430,000 — 430K	✓ ✓ ✓
4.3 — 4R3	✓ ✓ ✓	75 — 75R	✓ ✓ ✓ ✓	1,300 — 1K3	✓ ✓ ✓	24,000 — 24K	✓ ✓ ✓	470,000 — 470K	✓ ✓ ✓
4.7 — 4R7	✓ ✓ ✓	82 — 82R	✓ ✓ ✓ ✓	1,500 — 1K5	✓ ✓ ✓	30,000 — 30K	✓ ✓ ✓	510,000 — 510K	✓ ✓ ✓
5.1 — 5R1	✓ ✓ ✓	91 — 91R	✓ ✓ ✓ ✓	1,600 — 1K6	✓ ✓ ✓	33,000 — 33K	✓ ✓ ✓	560,000 — 560K	✓ ✓ ✓
5.6 — 5R6	✓ ✓ ✓	100 — 100	✓ ✓ ✓ ✓	1,800 — 1K8	✓ ✓ ✓	36,000 — 36K	✓ ✓ ✓	620,000 — 620K	✓ ✓ ✓
6.2 — 6R2	✓ ✓ ✓	110 — 110	✓ ✓ ✓ ✓	2,000 — 2K0	✓ ✓ ✓	39,000 — 39K	✓ ✓ ✓	680,000 — 680K	✓ ✓ ✓
6.8 — 6R8	✓ ✓ ✓	120 — 120	✓ ✓ ✓ ✓	2,200 — 2K0	✓ ✓ ✓	43,000 — 43K	✓ ✓ ✓	750,000 — 750K	✓ ✓ ✓
7.5 — 7R5	✓ ✓ ✓	130 — 130	✓ ✓ ✓ ✓	2,400 — 2K4	✓ ✓ ✓	47,000 — 47K	✓ ✓ ✓	820,000 — 820K	✓ ✓ ✓
8.2 — 8R2	✓ ✓ ✓	150 — 150	✓ ✓ ✓ ✓	2,700 — 2K7	✓ ✓ ✓	51,000 — 51K	✓ ✓ ✓	910,000 — 910K	✓ ✓ ✓
9.1 — 9R1	✓ ✓ ✓	160 — 160	✓ ✓ ✓ ✓	3,000 — 3K0	✓ ✓ ✓	56,000 — 56K	✓ ✓ ✓	1 MEG — 1M0	✓ ✓ ✓
10 — 10R	✓ ✓ ✓	180 — 180	✓ ✓ ✓ ✓	3,300 — 3K3	✓ ✓ ✓	62,000 — 62K	✓ ✓ ✓		
11 — 11R	✓ ✓ ✓	200 — 200	✓ ✓ ✓ ✓	3,600 — 3K6	✓ ✓ ✓	68,000 — 68K	✓ ✓ ✓		
12 — 12R	✓ ✓ ✓	220 — 220	✓ ✓ ✓ ✓	3,900 — 3K9	✓ ✓ ✓	75,000 — 75K	✓ ✓ ✓		
13 — 13R	✓ ✓ ✓	240 — 240	✓ ✓ ✓ ✓	4,300 — 4K3	✓ ✓ ✓	82,000 — 82K	✓ ✓ ✓		
15 — 15R	✓ ✓ ✓	270 — 270	✓ ✓ ✓ ✓	4,700 — 4K7	✓ ✓ ✓	91,000 — 91K	✓ ✓ ✓		
16 — 16R	✓ ✓ ✓	330 — 330	✓ ✓ ✓ ✓	5,100 — 5K1	✓ ✓ ✓	100,000 — 100K	✓ ✓ ✓		

✓ = Most popular standard values

✗ = Standard values

✗ = Non-standard values subject to minimum handling charge per item