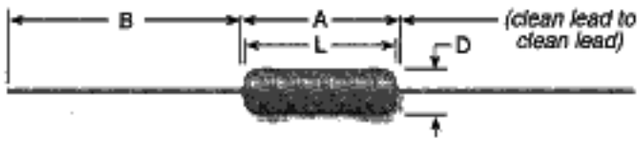
PowrFilm resistors offer a major advantage over comparable metal film, carbon composition and fiberglass core wire types: A high power-to-size ratio. The PF1 can dissipate 1.0 watt in a size comparable to a ¼ watt resistor and 3 watts in a package smaller than a comparable 1 watt unit.

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.

PowrFilm®

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



Series	Wattage	Ohms	Dimensions (in. / mm) Length	Diam.	Dim. A	Dim. B	Voltage	Hot spot max.	Lead ga.
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	0.667 / *17*	0.205 / *5.2*	0.704 / *18*	1.5 / *38.1*	750	250°C	20

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.**

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 withstanding voltage: 500 VAC

✚ = Most popular stock values
✔ = Stock values
❖ = Non-stock values subject to minimum handling charge per item

STOCK PART NUMBERS FOR STANDARD RESISTANCE VALUES

Ohmic value	Part No. Prefix ➡ Suffix ⬇	Wattage PF1J—1.0	PF2J—2.0	PF3J—3.0
1	—1R0	✔	✔	✔
1.1	—1R1	✔	✔	✔
1.2	—1R2	✔	✔	✔
1.3	—1R3	✔	✔	✔
1.5	—1R5	✔	✔	✔
1.6	—1R6	✔	✔	✔
1.8	—1R8	✔	✔	✔
2	—2R0	✔	✔	✔
2.2	—2R2	✔	✔	✔
2.4	—2R4	✔	✔	✔
2.7	—2R7	✔	✔	✔
3	—3R0	✔	✔	✔
3.3	—3R3	✔	✔	✔
3.6	—3R6	✔	✔	✔
3.9	—3R9	✔	✔	✔
4.3	—4R3	✔	✔	✔
4.7	—4R7	✔	✔	✔
5.1	—5R1	✔	✔	✔
5.6	—5R6	✔	✔	✔
6.2	—6R2	✔	✔	✔
6.8	—6R8	✔	✔	✔
7.5	—7R5	✔	✔	✔
8.2	—8R2	✔	✔	✔
9.1	—9R1	✔	✔	✔
10	—10R	✔	✔	✔
11	—11R	✔	✔	✔
12	—12R	✔	✔	✔
13	—13R	✔	✔	✔
15	—15R	✔	✔	✔
16	—16R	✔	✔	✔

Ohmic value	Part No. Prefix ➡ Suffix ⬇	Wattage PF1J—1.0	PF2J—2.0	PF3J—3.0
18	—18R	✔	✔	✔
20	—20R	✔	✔	✔
22	—22R	✔	✔	✔
24	—24R	✔	✔	✔
27	—27R	✔	✔	✔
30	—30R	✔	✔	✔
33	—33R	✔	✔	✔
36	—36R	✔	✔	✔
39	—39R	✔	✔	✔
43	—43R	✔	✔	✔
47	—47R	✔	✔	✔
51	—51R	✔	✔	✔
56	—56R	✔	✔	✔
62	—62R	✔	✔	✔
68	—68R	✔	✔	✔
75	—75R	✔	✔	✔
82	—82R	✔	✔	✔
91	—91R	✔	✔	✔
100	—100	✔	✔	✔
110	—110	✔	✔	✔
120	—120	✔	✔	✔
130	—130	✔	✔	✔
150	—150	✔	✔	✔
160	—160	✔	✔	✔
180	—180	✔	✔	✔
200	—200	✔	✔	✔
220	—220	✔	✔	✔
240	—240	✔	✔	✔
270	—270	✔	✔	✔
330	—330	✔	✔	✔

Ohmic value	Part No. Prefix ➡ Suffix ⬇	Wattage PF1J—1.0	PF2J—2.0	PF3J—3.0
350	—350	✔	✔	✔
360	—360	✔	✔	✔
390	—390	✔	✔	✔
430	—430	✔	✔	✔
470	—470	✔	✔	✔
510	—510	✔	✔	✔
560	—560	✔	✔	✔
620	—620	✔	✔	✔
680	—680	✔	✔	✔
750	—750	✔	✔	✔
820	—820	✔	✔	✔
910	—910	✔	✔	✔
1,000	—1K0	✔	✔	✔
1,100	—1K1	✔	✔	✔
1,200	—1K2	✔	✔	✔
1,300	—1K3	✔	✔	✔
1,500	—1K5	✔	✔	✔
1,600	—1K6	✔	✔	✔
1,800	—1K8	✔	✔	✔
2,000	—2K0	✔	✔	✔
2,200	—2K0	✔	✔	✔
2,400	—2K4	✔	✔	✔
2,700	—2K7	✔	✔	✔
3,000	—3K0	✔	✔	✔
3,300	—3K3	✔	✔	✔
3,600	—3K6	✔	✔	✔
3,900	—3K9	✔	✔	✔
4,300	—4K3	✔	✔	✔
4,700	—4K7	✔	✔	✔
5,100	—5K1	✔	✔	✔

Ohmic value	Part No. Prefix ➡ Suffix ⬇	Wattage PF1J—1.0	PF2J—2.0	PF3J—3.0
5,600	—5K6	✔	✔	✔
6,200	—6K2	✔	✔	✔
6,800	—6K8	✔	✔	✔
7,500	—7K5	✔	✔	✔
8,200	—8K2	✔	✔	✔
9,100	—9K1	✔	✔	✔
10,000	—10K	✔	✔	✔
11,000	—11K	✔	✔	✔
12,000	—12K	✔	✔	✔
13,000	—13K	✔	✔	✔
15,000	—15K	✔	✔	✔
16,000	—16K	✔	✔	✔
18,000	—18K	✔	✔	✔
20,000	—20K	✔	✔	✔
22,000	—22K	✔	✔	✔
24,000	—24K	✔	✔	✔
30,000	—30K	✔	✔	✔
33,000	—33K	✔	✔	✔
36,000	—36K	✔	✔	✔
39,000	—39K	✔	✔	✔
43,000	—43K	✔	✔	✔
47,000	—47K	✔	✔	✔
51,000	—51K	✔	✔	✔
56,000	—56K	✔	✔	✔
62,000	—62K	✔	✔	✔
68,000	—68K	✔	✔	✔
75,000	—75K	✔	✔	✔
82,000	—82K	✔	✔	✔
91,000	—91K	✔	✔	✔
100,000	—100K	✔	✔	✔

Ohmic value	Part No. Prefix ➡ Suffix ⬇	Wattage PF1J—1.0	PF2J—2.0	PF3J—3.0
110,000	—110K	✔	✔	✔
120,000	—120K	✔	✔	✔
130,000	—130K	✔	✔	✔
150,000	—150K	✔	✔	✔
160,000	—160K	✔	✔	✔
180,000	—180K	✔	✔	✔
200,000	—200K	✔	✔	✔
220,000	—220K	✔	✔	✔
240,000	—240K	✔	✔	✔
270,000	—270K	✔	✔	✔
300,000	—300K	✔	✔	✔
330,000	—330K	✔	✔	✔
360,000	—360K	✔	✔	✔
390,000	—390K	✔	✔	✔
430,000	—430K	✔	✔	✔
470,000	—470K	✔	✔	✔
510,000	—510K	✔	✔	✔
560,000	—560K	✔	✔	✔
620,000	—620K	✔	✔	✔
680,000	—680K	✔	✔	✔
750,000	—750K	✔	✔	✔
820,000	—820K	✔	✔	✔
910,000	—910K	✔	✔	✔
1 MEG	—1M0	✔	✔	✔