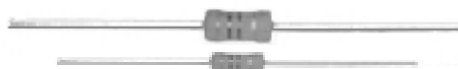


# FUSIBLE FILM RESISTORS, GENERAL PURPOSE 1/8 WATT to 3 WATT BW SERIES



- ☐ Industry's widest selection of fusible film resistors- 1/8W to 3W, .1Ω to 24KΩ, 1% to 5%
- ☐ Low cost, quick delivery (available on **SWIFT™** program)
- ☐ Flameproof (per UL94V0)
- ☐ Surface-Mount versions available

## OPTIONS

- ☐ Modified fusing characteristics (fast blow, slow blow, etc.)
- ☐ Increased pulse capability (Option P)
- ☐ Dozens of additional options are available...  
Mil-spec screening/burn-in, special marking, non-standard values, custom lead forming, increased power or voltage, etc. Customized components are an RCD specialty!

## Low Cost Circuit Protection!

RCD pioneered fusible film resistors in the early 1970's as a low cost approach to circuit protection in case of overload or component failure. The component is designed to act as a conventional resistor under normal operating conditions, but open quickly under fault conditions. Series BW meet the requirements of EIA RS-325 and can be useful in eliminating circuit board damage and fire hazards. Standard fusing characteristics can be altered to customer requirements.

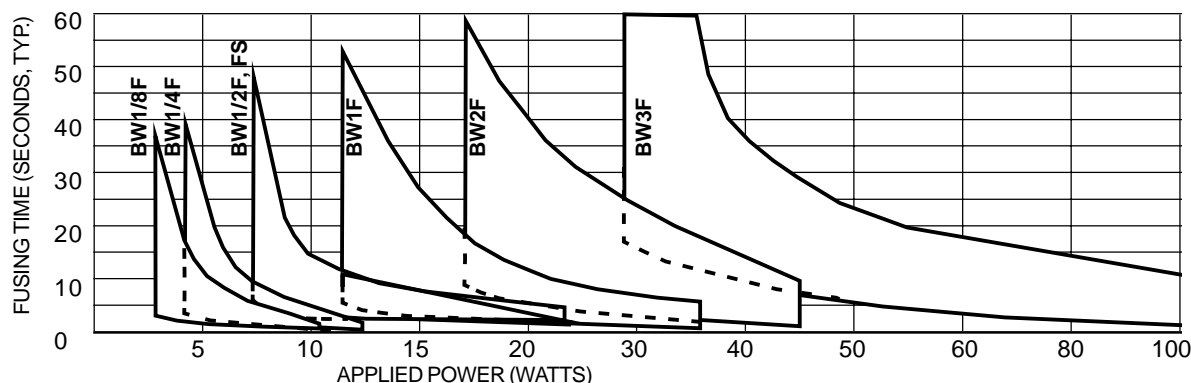


## SPECIFICATIONS

	RCD Type	Wattage Rating <sup>1</sup>	Resis. . Range <sup>1</sup>	Voltage Rating <sup>1,2</sup>	L±.032[.8]	D±.024[.6]	d±.003 [.05]	H(Min.)
NEW!	BW1/8F	1/8W	1Ω to 10K	200V	.145 [3.7]	.067 [1.7]	.020 [.5]	1.00 [25]
	BW1/4F	1/4W	0.1Ω to 10K	200V	.250 [6.4]	.090 [2.3]	.022 [.55]	1.02 [26]
	BW1/2F	1/2W	0.1Ω to 24K	250V	.354 [9.0]	.128 [3.3]	.025 [.6]	1.02 [26]
NEW!	BW1/2FS	1/2W	0.2Ω to 20K	250V	.250 [6.4]	.090 [2.3]	.022 [.55]	1.02 [26]
	BW1F	1.0W	0.1Ω to 24K	300V	.375 [9.5]	.135 [3.4]	.026 [.65]	1.02 [26]
	BW2F	2.0W	0.1Ω to 24K	300V	.450 [11.4]	.162 [4.1]	.031 [.8]	1.02 [26]
	BW3F	3.0W	0.1Ω to 24K	350V	.600±.062[15.2±1.6]	.220±.032[5.6±.81]	.031 [.8]	1.37 [35]

<sup>1</sup> Expanded range available <sup>2</sup> Maximum working voltage is determined by  $E = \sqrt{PR}$ , E should not exceed value listed.

## FUSING CHARACTERISTICS



## APPLICATION NOTES:

- Fault level must be suitable to safely open the resistor. If insufficient, the resistor may reach elevated temp. For this reason, the fusing overload must be relatively large compared to rated W, 20 to 40x is common for most circuits, and should be at least equal to the minimum W indicated in each of the above charts. Fusing may still occur at W levels below these but not consistently (fast-blow models available). Don't exceed volt rating or 200x W rating, whichever less (increased levels avail).
- For customized models, complete RCD's Fuse Questionnaire, or advise the desired fusing wattage or current, min. and max. "blow" time, continuous operating wattage, ambient temperature, pulse conditions the resistor must withstand, physical constraints, voltage to be interrupted, frequency, etc.
- It is not advisable to mount the resistors against other components or the PCB.
- Fusing times vary depending on resistance value. Typical fusing times are given above for 1Ω - 3.9K. Low values tend to fuse slower. Consult factory for assistance.
- Residual resis. is  $\geq 50x$  initial value after fusing at 20x rated W (30x for 1/8W).
- Verify selection by evaluating under the full range of fault conditions. Place resistors inside a protective case when testing under overload.

## TYPICAL PERFORMANCE CHARACTERISTICS

Temperature Coefficient	200ppm/°C
Load Life Stability	5%
Operating Temp. Range	-55 to +165°C
Power Derating	0.71%/°C >25°C
Dielectric Strength	500V (300V BW1/8F)

## P/N DESIGNATION: BW1F - 10R0 - J T

RCD Type \_\_\_\_\_  
Options (leave blank if standard) \_\_\_\_\_  
4-Digit Resis. Code: 3 signif. digits \_\_\_\_\_  
& Multiplier (R100=0.1Ω, 1R00=1Ω, 1000=100Ω, 1001=1KΩ)  
Tolerance: J=5% (std.) G=2%, F=1% \_\_\_\_\_  
Packaging: 'B' Bulk, 'T' Tape & Reel \_\_\_\_\_