# **Bussmann**®

# Semiconductor Fuses 700 Volts AC/DC, 35-1000 Amps



CATALOG SYMBOL: FBP 700V AC, 700V DC INTERRUPTING RATING 200,000 AMPERES RMS SYMMETRICAL U.L. RECOGNIZED (GUIDE #JFHR2, FILE # E56412)

### Catalog Numbers

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FBP-35	FBP-80	FBP-350
FBP-40	FBP-90	FBP-400
FBP-50	FBP-100	FBP-450
FBP-60	FBP-125	FBP-500
FBP-70	FBP-150	FBP-600
	FBP-175	FBP-700
	FBP-200	FBP-800
	FBP-250	FBP-900
	FBP-300	FBP-1000

### Ultra High Degree of Current Limitation and Low I<sup>2</sup>t.

- The heat energy of even low-level fault currents can quickly destroy a semiconductor device.
- \* Buss FW type fuse limits peak let-thru current to a level which is a fraction of the potential available short-circuit peak current.
- Fast speed-of-response to build-up of short-circuit current and the quickly decaying short-circuit current as the fuse suppresses internal arcing together can limit the l<sup>2</sup>t let-thru to values substantially lower than the l<sup>2</sup>t withstand of the semiconductor device.

#### Current Rating.

- Current rating is given in AC (rms) for an ambient temperature of 20°C (68°F).
- Although these fuses can be operated at 100% of rating, good design practice dictates some derating (i.e. for ambient temperature), typically this is 20%.

## Voltage Rating.

- Rated voltage of Semiconductor fuses is given in terms of A.C. operation, 60Hz.
- When used in D.C. circuits no voltage derating is required provided the minimum interrupting capability is eight times the fuse rating and the time constant does not exceed those specified in U.L. 198L.

## Total Clearing I<sup>2</sup>t.

• Maximum values of total clearing I<sup>2</sup>t are obtained at the rated A.C. voltage, an arcing angle between 60° and 90°, at an available symmetrical rms current of 100,000 amperes, and at a power factor of less than 15%.

#### Arc Voltage.

- The arc voltage which develops across a fuse when it is clearing a fault current must always exceed the system voltage.
- This arc voltage may reach a value which is twice that of the system applied voltage.



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#### **Dimensional Data**



- 1 34" (34.1mm)



2.0" (50.8mm)

0.38"

(9.53mm)

-+++

0.16"-(3.97mm)

5.09" (129.0mm) — 4.09" — (104.0mm)

- 2.66" -(67.5mm)

125-200 Ampere Rating

(+++)



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0.25" (6.4mm)

0.16" → (4.0mm)



**COOPER** Bussmann 12-17-98 SB98107 Rev. A

FBP

— 2.5" — (63.5mm)

**FBP** 

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## Time-Current Characteristic Curves-Average Melt



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