

# 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

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 I<sup>2</sup>t let-thru to values substantially lower than the I<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.

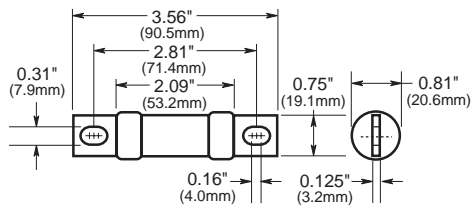
- The arc voltage which develops across a fuse when it is clearing a fault current must always exceed the system voltage.
- This arc voltage may reach a value which is twice that of the system applied voltage.

# Semiconductor Fuses

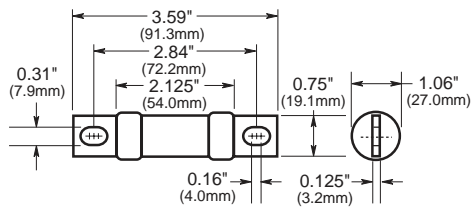
## 700 Volts AC/DC, 35-1000 Amps

FBP

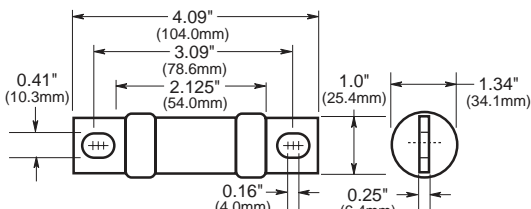
### Dimensional Data



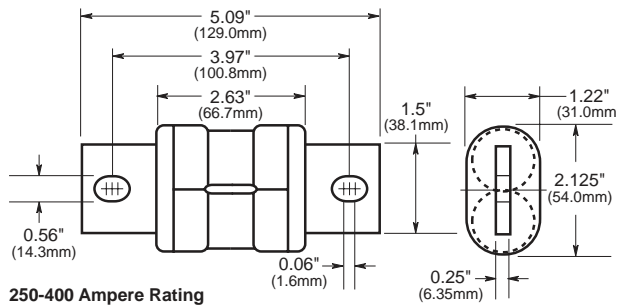
35-60 Ampere Rating



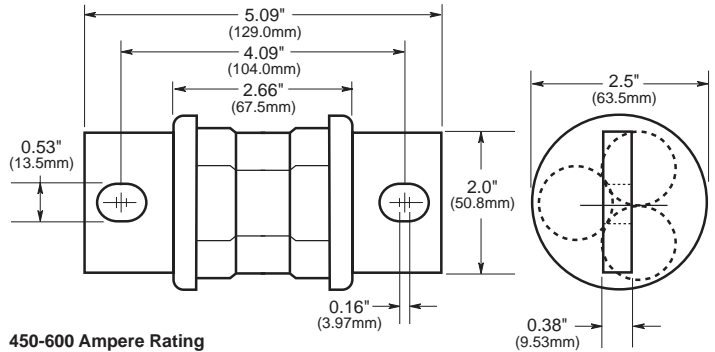
70-100 Ampere Rating



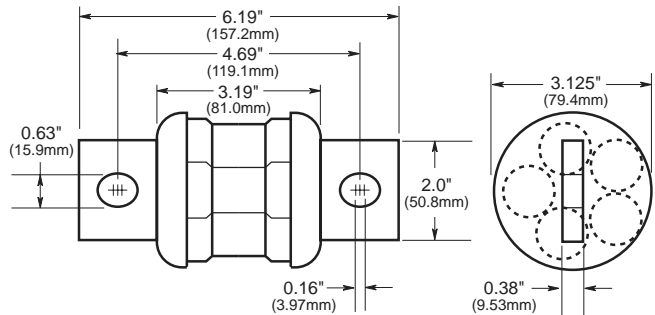
125-200 Ampere Rating



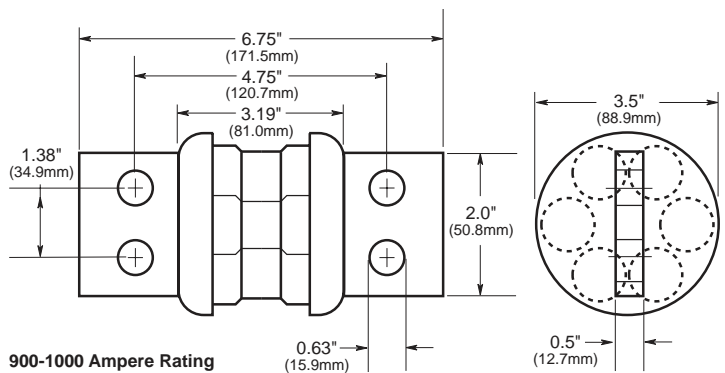
250-400 Ampere Rating



450-600 Ampere Rating



700-800 Ampere Rating



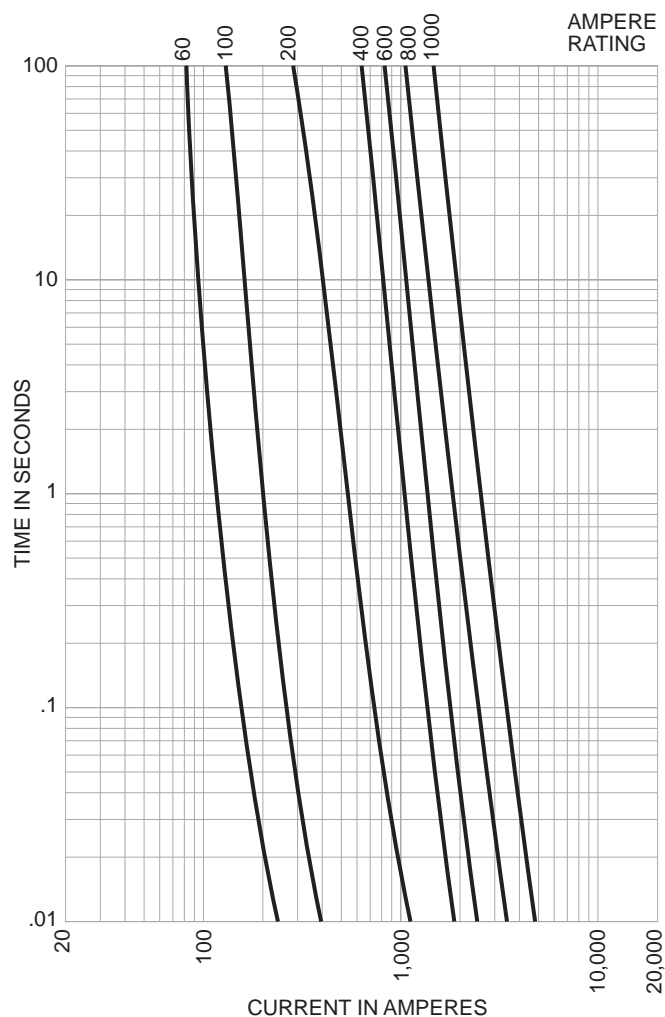
900-1000 Ampere Rating

# Semi-Conductor Fuses

FBP

700 Volts AC/DC

## Time-Current Characteristic Curves—Average Melt



The only controlled copy of this BIF document is the electronic read-only version located on the Bussmann Network Drive. All other copies of this BIF document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.