



#### Features

- Designed to UL 248-13 and IEC 60269-4 semiconductor fuse standards
- 500 VDC/690 VAC and 32-100 A ratings available
- Up to 100 kA interrupting rating
- Compact size: 17.5 mm dia. x 46 mm L
- Bolt-down mounting type
- RoHS compliant\* and halogen free\*\*

#### Applications

- Energy Storage Systems
- Battery pack protection
- Battery Disconnect Unit (BDU)
- Battery module protection

#### Sustainability

- Small size reduces material use
- ISO 14001, low impact energy

#### Product Overview



Bourns® PF-SRC50E Series POWrFuse™ High-Power Fuses feature high-power industrial fuse links designed to meet UL 248-13 and IEC 60269-4 (aR Class) semiconductor standards.

The PF-SRC50E Series is engineered to protect semiconductor devices against overcurrent conditions. Housed in a compact 17.5 mm diameter by 46 mm length, this bolt-down mounting series is ideal for use in power inverters, converters, rectifiers, AC/DC drives, uninterruptible power supplies (UPS) and reduced voltage motor starters.

#### Electrical Characteristics

| Model          | Rated Current (A) | Rated Voltage      | Interrupting Rating                 | $I_{2t}$ (A <sup>2</sup> S)*** |          | Max. Power Loss (W)**** | Agency Recognition                    |
|----------------|-------------------|--------------------|-------------------------------------|--------------------------------|----------|-------------------------|---------------------------------------|
|                |                   |                    |                                     | Pre-arcing                     | Cleaning |                         |                                       |
| PF-SRC50E32B1  | 32                | 500 VDC<br>690 VAC | 50 kA @ 500 VDC<br>100 kA @ 690 VAC | 44                             | 320      | 7.6                     | <br><br>R 50705703<br><br>AN 50705725 |
| PF-SRC50E40B1  | 40                |                    |                                     | 53                             | 400      | 10.0                    |                                       |
| PF-SRC50E50B1  | 50                |                    |                                     | 120                            | 900      | 11.6                    |                                       |
| PF-SRC50E63B1  | 63                |                    |                                     | 210                            | 1600     | 12.5                    |                                       |
| PF-SRC50E80B1  | 80                |                    |                                     | 330                            | 2400     | 18.2                    |                                       |
| PF-SRC50E100B1 | 100               |                    |                                     | 480                            | 3500     | 26.7                    |                                       |

\*\*\* The value is measured at maximum breaking capacity (DC); the minimum breaking capacity = 500 % of rated current.

\*\*\*\* Measured at 100 % of rated current.

#### Environmental Characteristics

Operating Temperature Range..... -40 °C to +85 °C  
Storage Conditions ..... 10~30 °C; 30~70 % RH

#### Contact Information

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#### How to Order

**PF - SRC 50E 100 B1**

POWrFuse™ Product Designator \_\_\_\_\_

Series Name \_\_\_\_\_

Rated Voltage \_\_\_\_\_  
50E = 500 VDC

Rated Current \_\_\_\_\_  
30 ~ 100 = 32 A ~ 100 A

Mounting Type \_\_\_\_\_  
B1 = Bolt-Down, Type 1

\* RoHS Directive 2015/863, Mar 31, 2015 and Annex.

\*\* Bourns considers a product to be "halogen free" if (a) the Bromine (Br) content is 900 ppm or less; (b) the Chlorine (Cl) content is 900 ppm or less; and (c) the total Bromine (Br) and Chlorine (Cl) content is 1500 ppm or less.

Specifications are subject to change without notice.

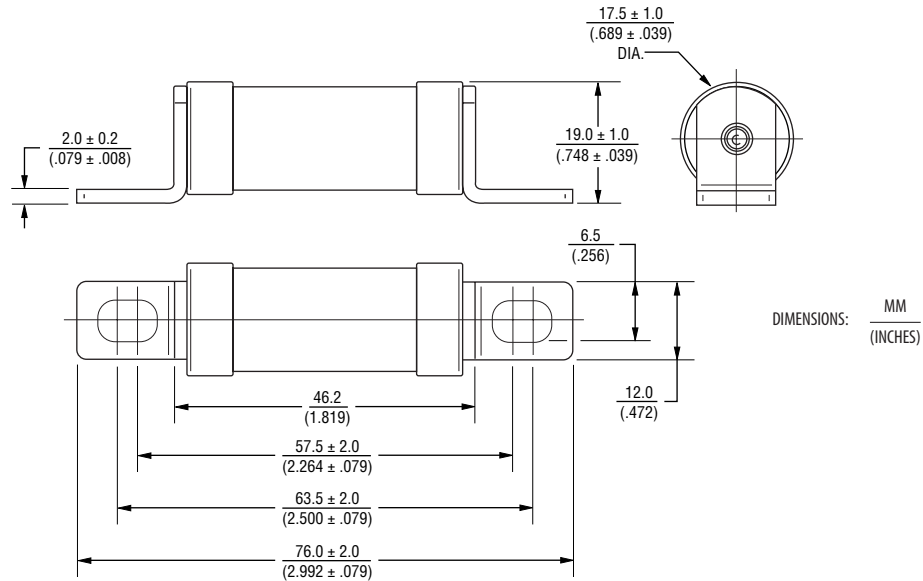
Users should verify actual device performance in their specific applications.

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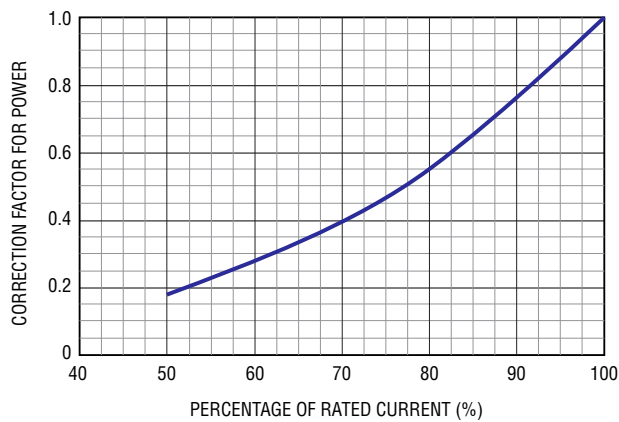


## Product Dimensions

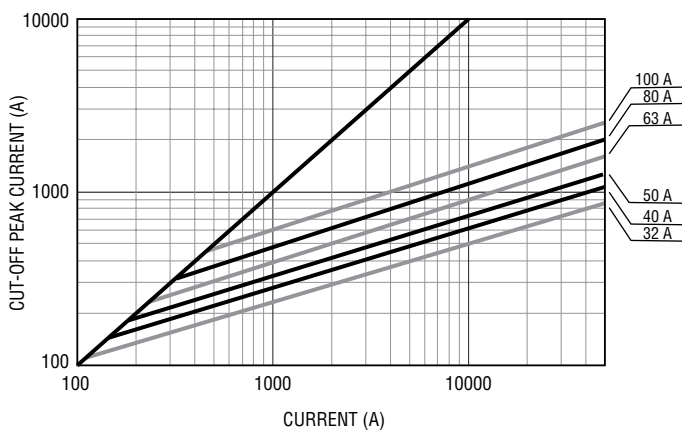
### Bolt-down (B1 Type)



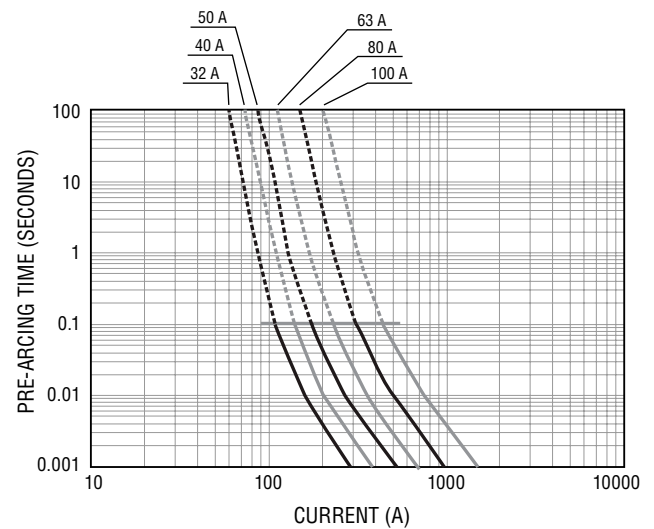
### Power Dissipation Curve (for Reference Only)



### Cut-off Current Characteristic Curves (for Reference Only)

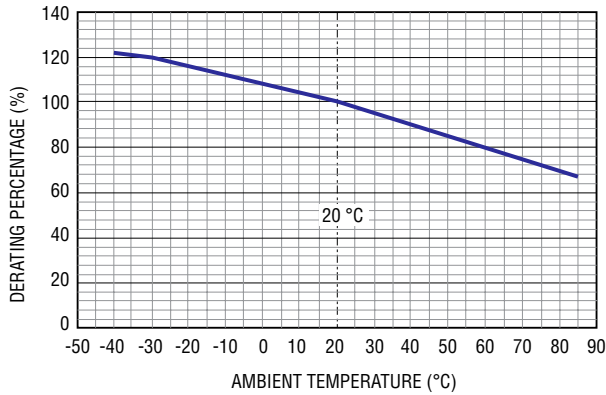


### Average Pre-Arcing Time vs. Current Curves (for Reference Only)





#### Current Rating Thermal Derating Curve



#### Recommended Mounting Torque and Bolt Sizes

| Mounting Torque | Bolt Size |
|-----------------|-----------|
| 6 ± 1 Nm        | M6        |

#### Typical Part Marking

| Current Rating (A) | Note | Ink Color | Marking  |
|--------------------|------|-----------|--|
| 32                 | 32   | Black     | <b>BOURNS®</b><br>PF-SRC50E<br>Note A<br>690VAC 100kA<br>500VDC 50kA<br>aR<br> |
| 40                 | 40   |           |  |
| 50                 | 50   |           |  |
| 63                 | 63   |           |  |
| 80                 | 80   |           |  |
| 100                | 100  |           |  |

#### Packaging

| Series    | Quantity |           |
|-----------|----------|-----------|
|           | Pallet   | Outer Box |
| PF-SRC50E | 40 pcs.  | 240 pcs.  |

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