BOURNS®

PF-SRC50E SERIES

Semiconductor (aR) Power Fuses



*RoHS COMPLIANT & **HALOGEN FREE

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® POWrFUSE™

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^2S)***		Max. Power Loss (W)****	Agency Recognition
				Pre-arcing	Cleaning		
PF-SRC50E32B1	32	500 VDC 690 VAC	50 kA @ 500 VDC 100 kA @ 690 VAC	44	320	7.6	cULus E500949
PF-SRC50E40B1	40			53	400	10.0	
PF-SRC50E50B1	50			120	900	11.6	TÜV Rheinland R 50705703
PF-SRC50E63B1	63			210	1600	12.5	
PF-SRC50E80B1	80			330	2400	18.2	CE AN 50705725
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

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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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PF-SRC50E SERIES

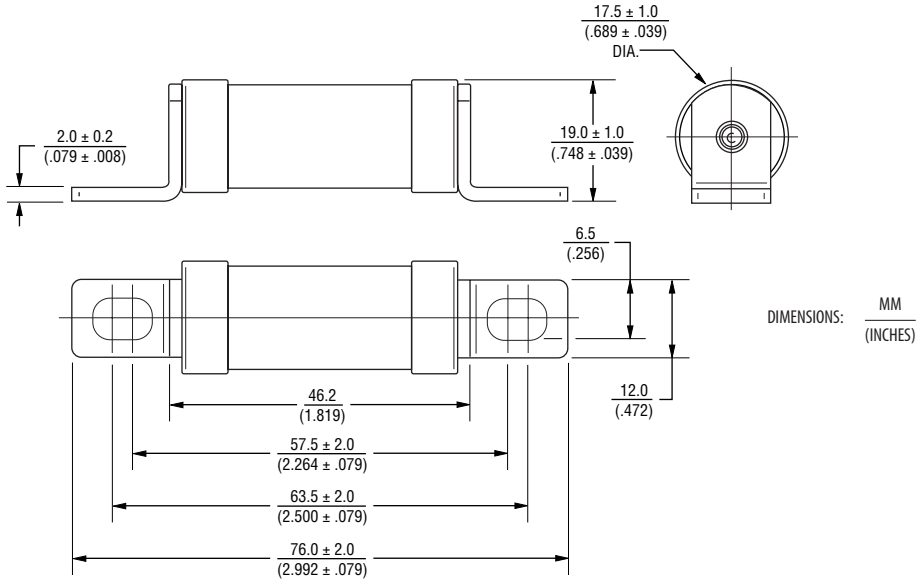
Semiconductor (aR) Power Fuses



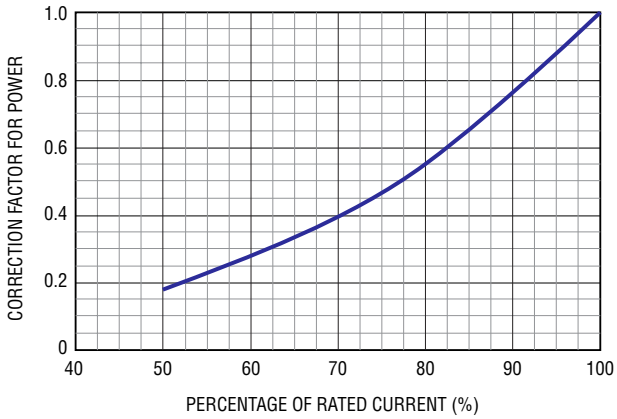
*RoHS COMPLIANT
&
**HALOGEN FREE

Product Dimensions

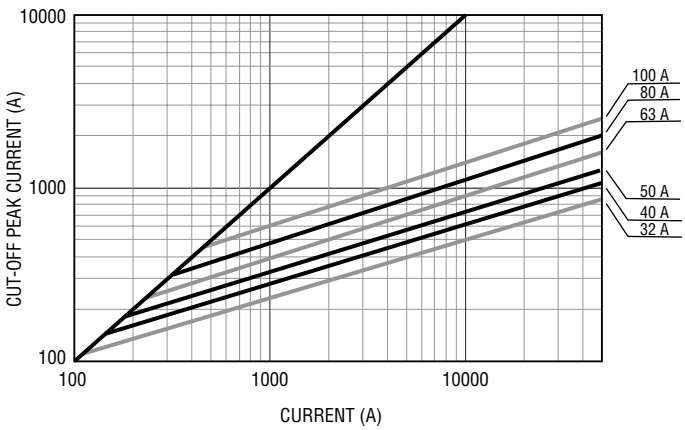
Bolt-down (B1 Type)



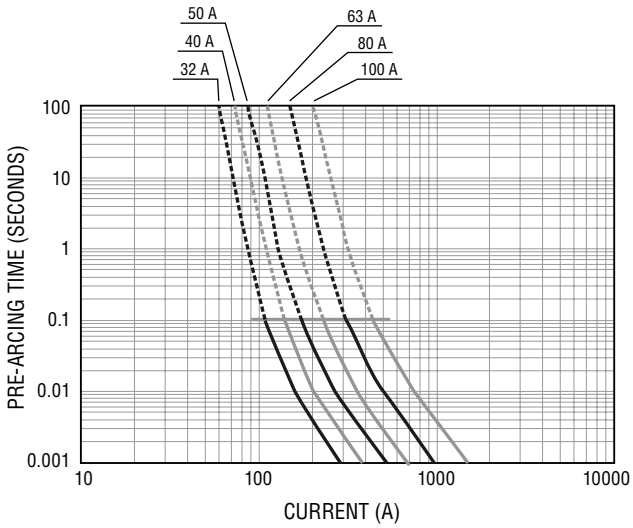
Power Dissipation Curve (for Reference Only)



Cut-off Current Characteristic Curves (for Reference Only)



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



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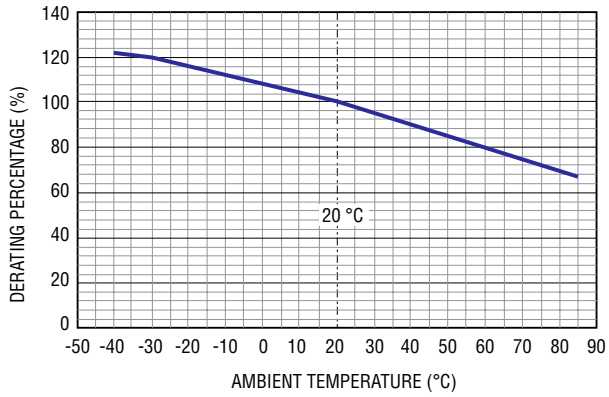
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Current Rating Thermal Derating Curve



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	BOURNS® PF-SRC50E Note A 690VAC 100kA 500VDC 50kA aR
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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Bourns® products are not recommended, authorized or intended for use in applications where failure or malfunction may result in personal injury, death, or severe property or environmental damage, such as without limitation nuclear, life-critical medical and certain automotive and aviation applications. Except as set forth in the bullet points below or unless expressly and specifically approved in writing on a case-by-case basis by an authorized Bourns' representative, use of any Bourns® products in such unauthorized high-risk applications is at the user's sole risk.

- Bourns considers implantable/invasive devices and devices/procedures designed as life-supporting or life-sustaining by the U.S. Food and Drug Administration or equivalent organizations outside of the United States as "life-critical" medical applications. Bourns expressly identifies those Bourns® standard products that are suitable for use in typical medical applications that are not life-critical in its publication entitled "Bourns Medical Grade Component Guide."

- Bourns expressly identifies those Bourns® standard products that are suitable for use in typical automotive applications associated with any Automate Safety Integrity Level (ASIL) in its publication entitled "Bourns Automotive Grade Component Guide." Bourns' designation of Bourns® product as compliant with the AEC-Q standard does not by itself mean that Bourns has approved such product for use in an automotive application.

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