



## Features

- Miniature Thermal Cutoff (TCO) device
- Surface mount, smallest body size
- Overtemperature and overcurrent protection
- Controls abnormal, excessive current virtually instantaneously, up to rated limits
- Wide range of temperature options
- High corrosion resistance
- Two height options: low profile & high force withstand

## Applications

- Battery cell protection for:
  - Notebook PCs
  - Tablet PCs
  - Smart phones
- Overtemperature protection for:
  - USB Type C cables (e.g. smart phone cables, notebook AC adapters)
  - Electronic cigarettes
  - Medical heaters\*\*\*

# SC Series Breaker (Surface Mount Thermal Cutoff Device)

## Ratings

Specification	A-TYPE			
	SC72AAA, SC72AAB	SC77AAA, SC77AAB	SC82AAA, SC82AAB	SC85AAA, SC85AAB
Trip Temperature	72 °C ± 5 °C	77 °C ± 5 °C	82 °C ± 5 °C	85 °C ± 5 °C
Reset Temperature	40 °C min.			
Contact Rating	DC9 V / 25 A, 6000 cycles			
Maximum Breaking Current	DC5 V / 50 A, 100 cycles			
Maximum Voltage	DC28 V / 25 A, 100 cycles			
Minimum Holding Voltage	3 V @ 25 °C for 1 minute			
Maximum Leakage Current	200 mA max. @ 25 °C			
Resistance	5 milliohms max.			

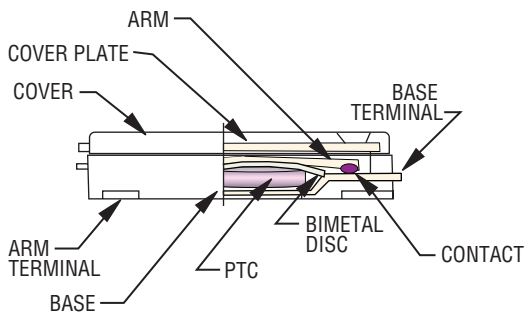
Mini-breaker TCOs reset when the following conditions are met:

- The ambient temperature has dropped by 10 °C below the minimum trip temperature; and
- Power to the TCO has been cycled (off/on)

## Agency Recognition

Description	
UL, cUL	File Number: E215638 (UL 60730)
TUV	File Number: R 50411018 0001~0002 (EN 60730 2-9-2010)

## Product Structure



- Model SCxAAB is the low profile 0.94 mm height version.
- Model SCxAAA is designed with a reinforced cover to withstand higher forces during the USB cable manufacturing injection molding process.

## How to Order

Series Designator \_\_\_\_\_ **SC 77 A A B**

Trip Temperature (±5 °C) \_\_\_\_\_

- 72
- 77
- 82
- 85

Arm Material \_\_\_\_\_

A = Cu Alloy, High current type

Body Material \_\_\_\_\_

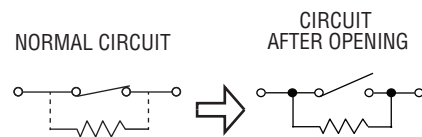
A = PPS

Body Thickness \_\_\_\_\_

A = 1.07 ± 0.05 mm

B = 0.94 ± 0.05 mm

## Circuit Diagram



**WARNING Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

\* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

\*\* 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.

\*\*\* Excluding life-saving, life-critical or life-sustaining applications.

Specifications are subject to change without notice.

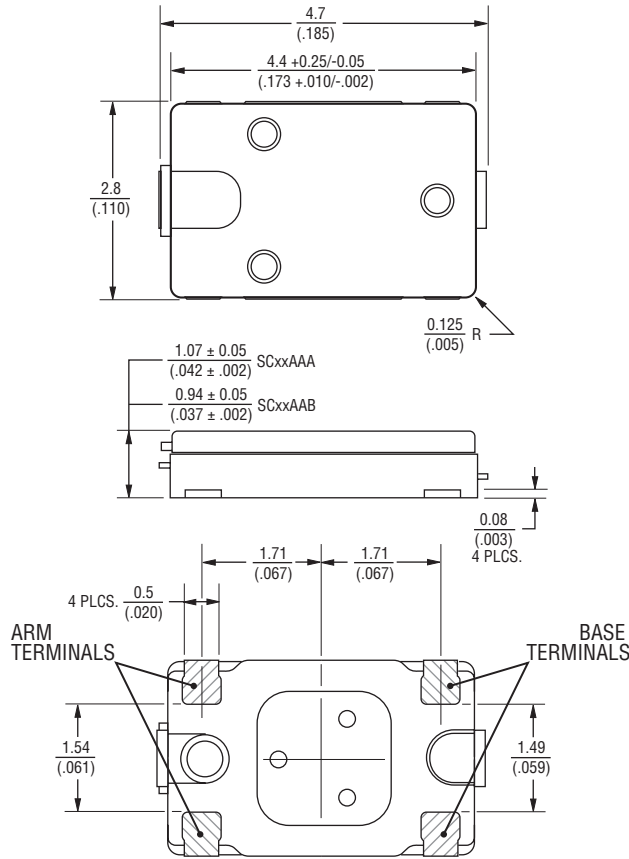
Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

# SC Series Breaker (Surface Mount Thermal Cutoff Device)

**BOURNS®**

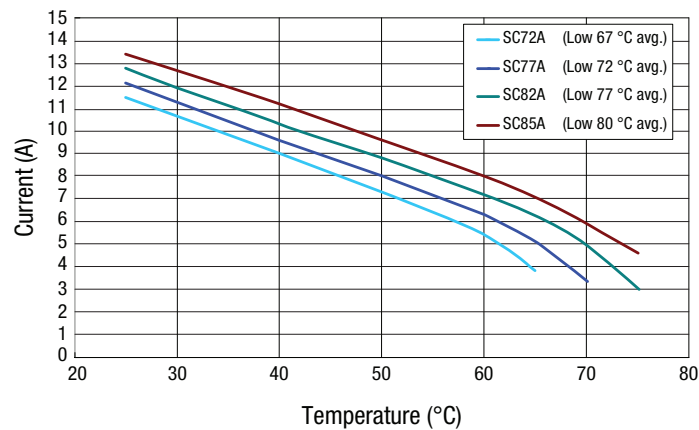
## Product Dimensions



DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$

## Typical Performance

**Current vs. Temperature Curves  
A-Type**



Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).