## 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. | | | |

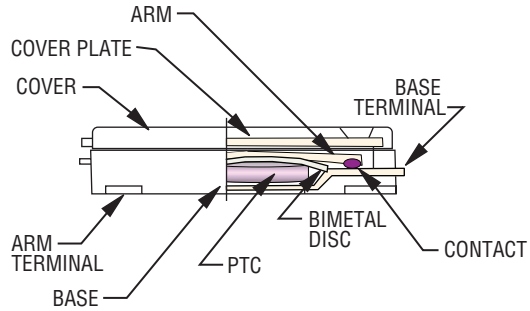
Mini-breaker TCOs reset when the following conditions are met:

- 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

**SC 77 A A B**

Series Designator

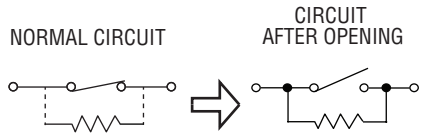
Trip Temperature (±5 °C)
- 72
- 77
- 82
- 85

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

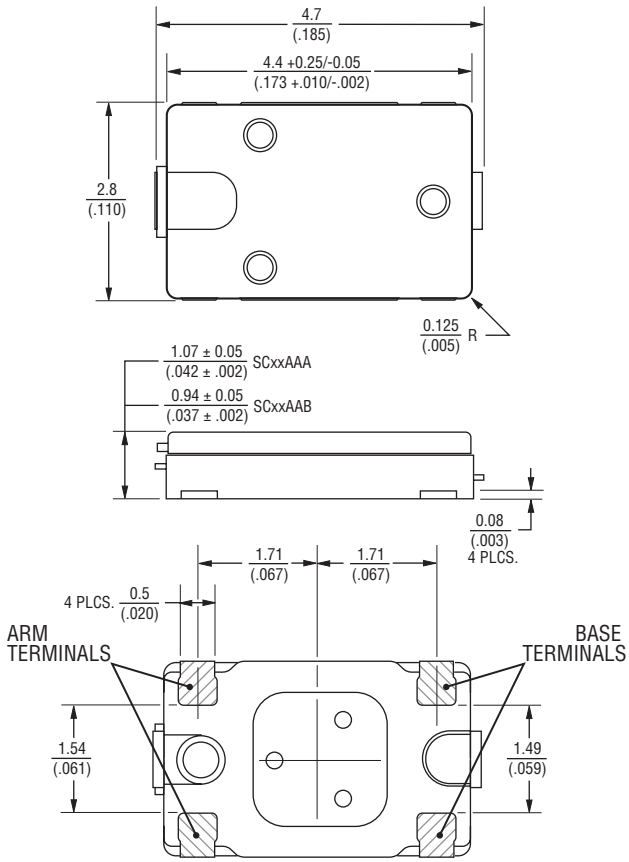
* RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

** 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.

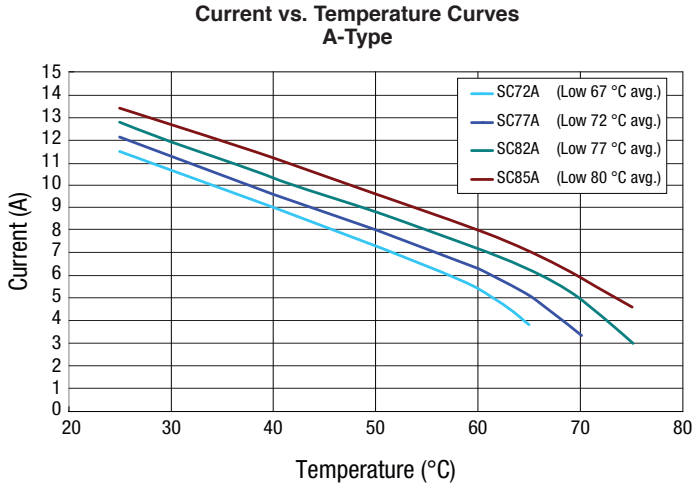
Specifications are subject to change without notice.
Users should verify actual device performance in their specific applications.
The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

## Product Dimensions




DIMENSIONS: MM / (INCHES)

## Typical Performance




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.