NEW PRODUCT BRIEF

Bourns® Model SW Mini-breaker Thermal Cutoff Device

INTRODUCTION

The introduction of the Bourns® Model SW Mini-breaker adds to the Company’s smallest SMD footprint overtemperature protection offering. Complementing Bourns’ latest Model SC Series, this new model will expand into a device series. The initial Model SW70AAB, the 70 °C version, delivers numerous important competitive features:

- Bourns’ smallest mini-breaker footprint at 4.7 mm x 2.8 mm
- Height of just 0.94 mm ±0.05 mm
- Automatically resettable
- Does not need the traditional self-holding CPTC heater
- Surface mount package helps to save space and cost

APPLICATIONS

The very small size of the Model SW Mini-breaker and its automatic reset feature makes it particularly well-suited to provide effective and precise overtemperature protection for:

- Wireless charging coils
- LED lighting
- Cosmetic and low/medium risk** medical diagnostic equipment heaters

ADDITIONAL FEATURES

- Trip temperature 70 °C.
- High trip temperature accuracy of ±5 °C
- Highly repeatable with ratings of up to 6,000 cycles
- Very low resistance values of just 5 mΩ max.
- RoHS compliant*

HOW TO ORDER

Series Designator

**Bourns® products have not been designed for and are not intended for use in “lifesaving” “life-critical” or “life-sustaining” applications nor any other applications where failure or malfunction of the Bourns® product may result in personal injury or death. See Legal Disclaimer Notice: www.bourns.com/docs/legal/disclaimer.pdf

PRODUCT OVERVIEW

**Product Structure**

- **COVER**
- **COVER PLATE**
- **ARM**
- **CONTACT**
- **BASE**
- **TERMINAL**
- **DISC**
- **BINMETAL**

**Circuit Diagram**

- **NORMAL CIRCUIT**
- **CIRCUIT AFTER OPENING**

PRODUCT DIMENSIONS

**Dimensions (MM)**

- **4.7**
- **4.4 +0.25/-0.05**
- **2.8**
- **0.94 ± 0.05**
- **0.125**
- **0.08**
- **0.5**
- **1.71**
- **1.49**
- **DIMENSIONS: MM (INCHES)**

**Dimensions (INCHES)**

- **1.85**
- **1.17 ± 0.010/-0.002**
- **1.10**
- **0.003**
- **0.020**
- **0.037 ± 0.002**
- **0.003**
- **0.003**
- **0.059**

**Body Material**

- A-type

**ARM Material**

- Cu alloy, high current type

**Agency Recognition**

- UL, cUL
- TUV

**Application Temperature Range**

- -30 ~ 100 °C

**ESD Classification (HBM)**

- 6

**Moisture Sensitivity Level**

- 1

** How to Order**

- SW 70 A A B
- 50
- JSW 7 0 A A B

**Additional Information**

- HIGH corrosion resistance
- Controls abnormal, excessive current virtually instantaneously, up to rated limits
- Overtemperature and overcurrent protection
- Bourns’ smallest automatically resettable surface mount mini-breaker device (up to 100 ℃ ambient)

**Warning**

- Cancer
- Reproductive Harm

**Specifications**

- Resistance 5 milliohms max.
- Hold Current
- Maximum Voltage
- Maximum Breaking Current
- Contact Rating
- Reset Temperature 49 °C ± 9 °C
- Trip Temperature 70 °C ± 5 °C

**Features**

- LEAD FREE