



# Sensata Technologies

## 7851 & 7854 SERIES



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## | 7851 AND 7854 SERIES

### 15 TO 30 AMP PRECISION THERMAL CIRCUIT BREAKER

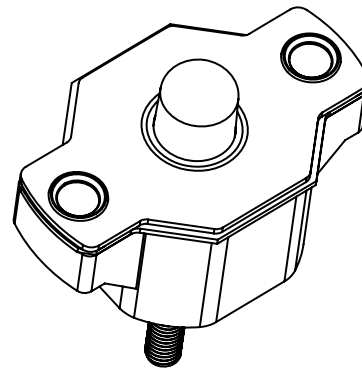
#### Introduction

The 7851 and 7854 series thermal breakers were designed to protect wiring and meet the harshest environmental requirements. The 7851 and 7854 series closed construction circuit breakers are weatherproof sealed for protection against moisture, dust, grease, fuel vapors and other harsh environments. The 7851 and 7854 series breakers are compact, lightweight and designed to interrupt short circuits or overloads, and combine trip-free protection with fast response time. Typical applications are protection of wire cable of accessory circuits, equipment and battery protection in construction and off-road equipment, marine, recreational vehicles (RV's), mining, agricultural equipment and electric (hybrid) vehicles.



#### Features

- 30VDC or 120VAC, 12.5 to 60 Amps
- Sealed assemblies, manual and automatic reset options
- Ignition protected SAE J1171
- Weatherproof SAE J553
- UL Recognized E36869



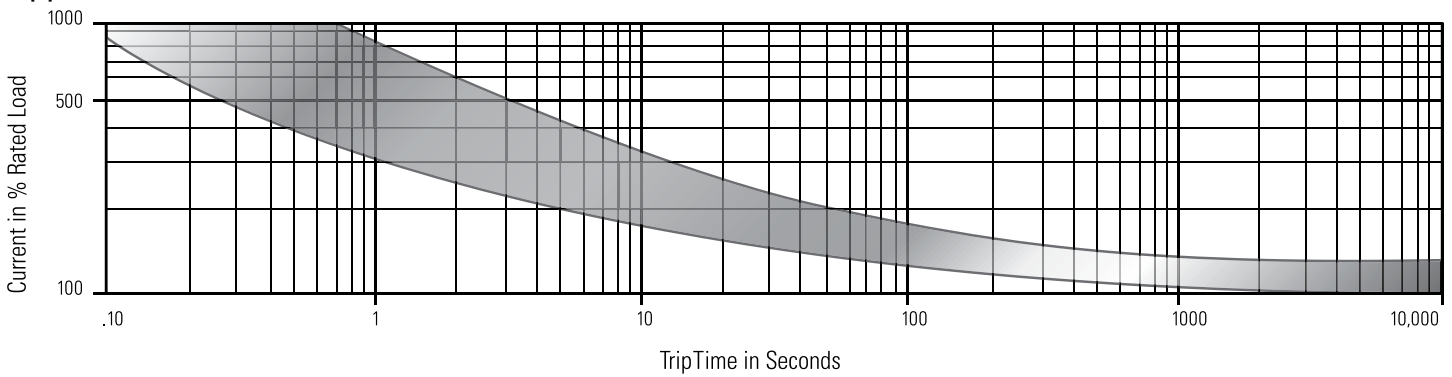
#### SPECIFICATIONS

<b>Calibration : 200% rated current, 77°F (25°C)</b>	12.5 to 60 amps : 5 to 55 seconds
<b>Ultimate Trip At 77°F (25°C)</b>	Must hold 100%, Must trip 135%
<b>Endurance</b>	Per SAE J553
<b>Interrupt Current Capacity</b>	Per SAE J553 and ABYC E-11
<b>Vibration</b>	10G MIL-STD-202 Method 204, Condition A
<b>Mechanical Shock</b>	MIL-STD-202 Method 101D
<b>Dielectric Strength</b>	MIL-STD-202 Method 301, 1500VAC min
<b>Insulation Resistance</b>	MIL-STD-202 Method 302, Condition B, 100MΩ min
<b>Weight</b>	7851 : 54 grams max 7854 : 49 grams max



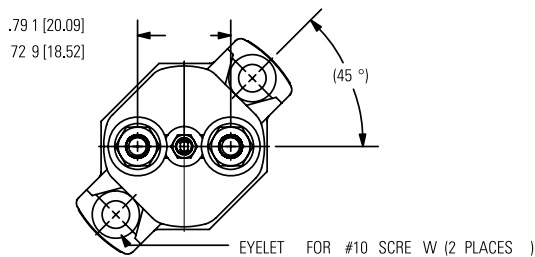
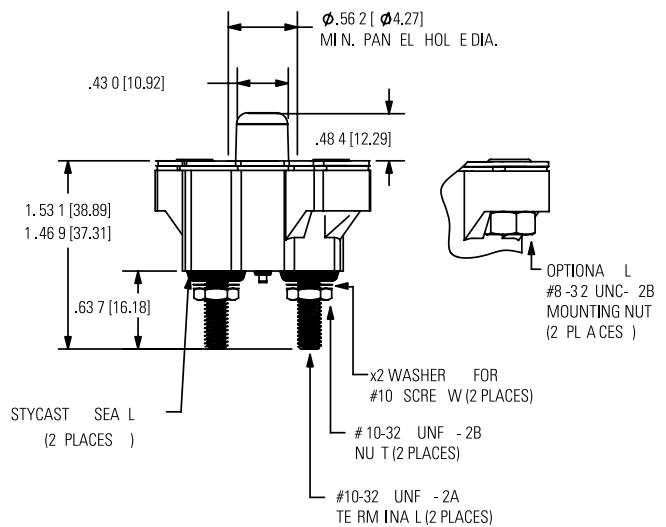
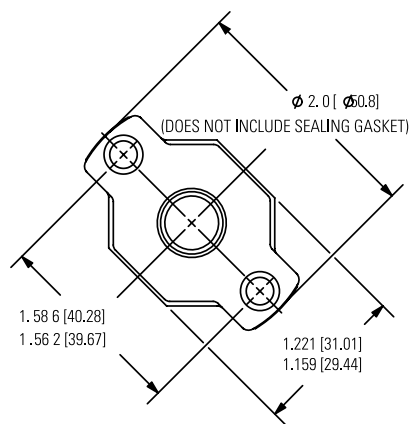
### TRIP CURVE

## Approximate Time, Current Characteristics At 77°F (25°C)



### DIMENSIONS

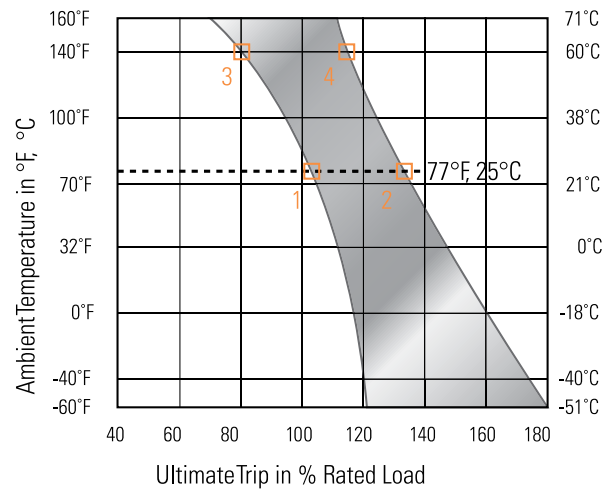
All dimensions are in inches [mm]





## DERATING CURVE

Performance characteristics are based on room temperature 77°F, 25°C). Consult Derating curve for ambient temperatures significantly higher or lower than standard room temperature. Example: At 77°F (25°C) the device is calibrated to hold at 100% of rated current (1) and trip at 135% of rated current (2). At 140°F (60°C), the same device will hold at approximately 78% of rated current (3), and trip at approximately 115% of rated current (4).



## ORDERING OPTIONS

Example : 7851-15-12.5-

**Configuration** 7851 - 15 - 12.5 -

**7851:** Manual, sealed  
**7854:** Auto, sealed

**Stud Length (approx)**

15	25
20	30

**Amp Rating**

12.5	17.5	25	35	50
15	20	30	40	60

**Mounting Nuts**

: leave blank for none  
**I:** optional mounting nuts

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