

# SBD MODULE 30A/100V

# P2H30QH10

## FEATURES

- \* Compatible with Isolated Base SOT227
- \* Dual Separated Diodes
- \* Extremely Low Forward Voltage Drop
- \* Low Power Loss, High Efficiency
- \* High Surge Capability

## OUTLINE DRAWING

See the Next Page

## TYPICAL APPLICATIONS

- \* High Frequency Rectification

## Maximum Ratings

Approx Net Weight:35g

| Parameter                              | Symbol           | Type / Grade |   | Unit |
|----------------------------------------|------------------|--------------|---|------|
|                                        |                  | P2H30QH10    | - |      |
| Repetitive Peak Reverse Voltage *1     | V <sub>RRM</sub> | 100          | - | V    |
| Non Repetitive Peak Reverse Voltage *1 | V <sub>RSM</sub> | -            | - |      |

| Parameter                           |               |                    | Conditions                                            | Max Rated Value | Unit |
|-------------------------------------|---------------|--------------------|-------------------------------------------------------|-----------------|------|
| Average Rectified Output Current *1 |               | I <sub>O(AV)</sub> | 50Hz Half Sine Wave condition<br>T <sub>c</sub> =96°C | 30              | A    |
| Surge Forward Current *1            |               | I <sub>FSM</sub>   | 50 Hz Half Sine Wave,1Pulse<br>Non-repetitive         | 150             | A    |
| Operating JunctionTemperature Range |               | T <sub>jw</sub>    |                                                       | -40 to +150     | °C   |
| Storage Temperature Range           |               | T <sub>stg</sub>   |                                                       | -40 to +125     | °C   |
| Isoration Voltage                   |               | Viso               | Base Plate to Terminals, AC1min                       | 2500            | V    |
| Mounting torque                     | Terminals     | F <sub>tor</sub>   | M4Screw                                               | 1.5(1.4)        | N•m  |
|                                     | Case mounting |                    | M4Screw<br>with Thermal Compound                      | 1.5(1.4)        |      |

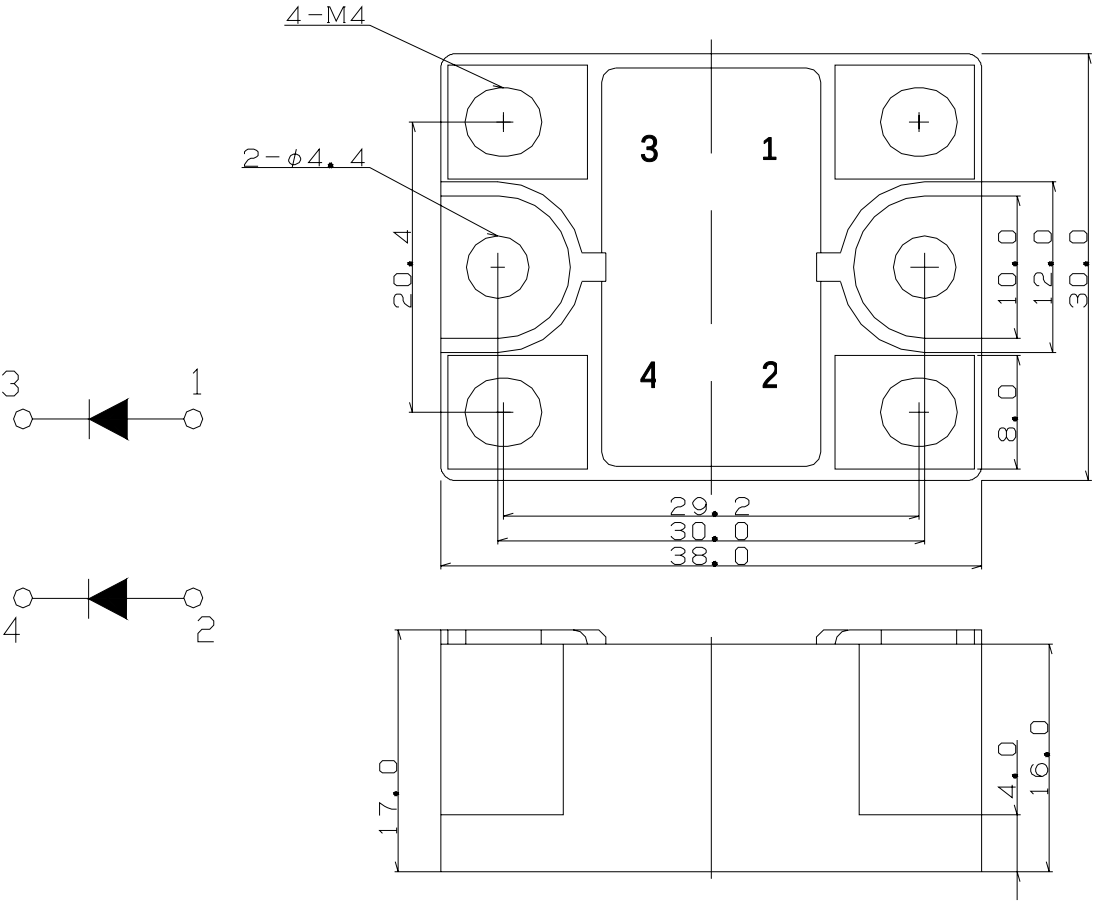
## Electrical • Thermal Characteristics

| Characteristics         | Symbol               | Test Conditions                                            | Max. | Unit |
|-------------------------|----------------------|------------------------------------------------------------|------|------|
| Peak Reverse Current *1 | I <sub>RM</sub>      | V <sub>RM</sub> = V <sub>RRM</sub> , T <sub>j</sub> = 25°C | 20   | μA   |
| Peak Forward Voltage *1 | V <sub>FM</sub>      | I <sub>FM</sub> = 30A, T <sub>j</sub> =25°C                | 1.0  | V    |
| Thermal Resistance *1   | R <sub>th(j-c)</sub> | Junction to Case                                           | 1.6  | °C/W |
|                         | R <sub>th(c-f)</sub> | Base Plate to Heat Sink with Thermal Compound              | 0.3  |      |

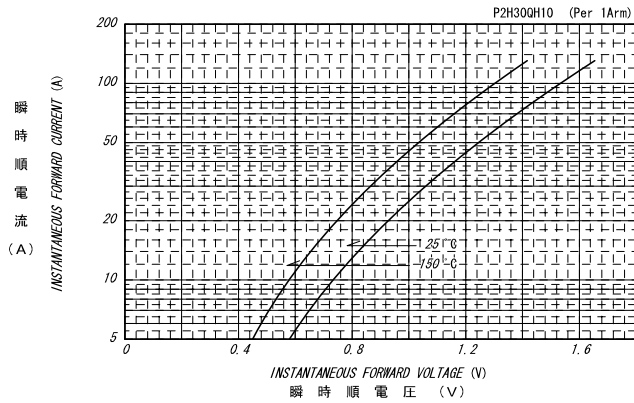
\*1: Value Per 1Arm

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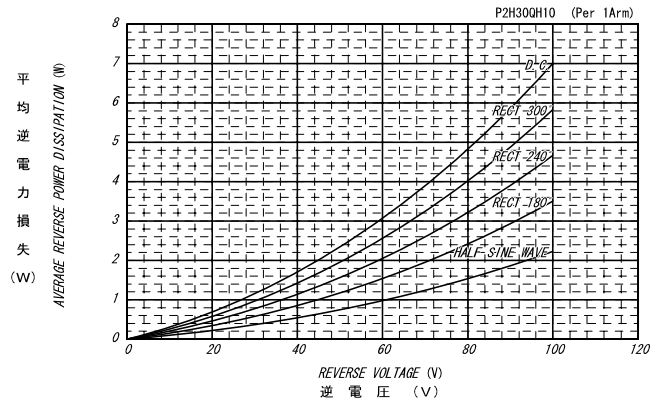
OUTLINE DRAWING (Dimensions in mm)



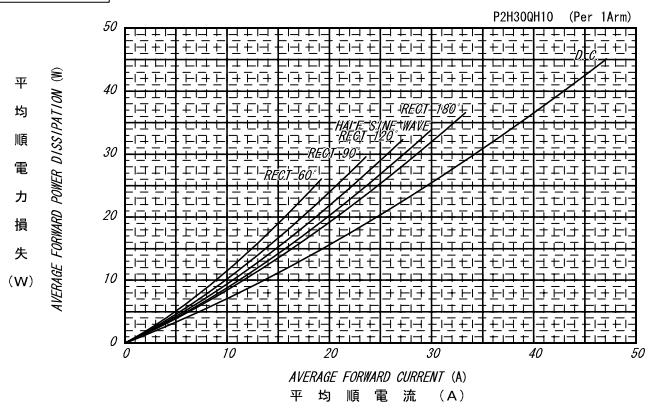
順電圧特性  
FORWARD CURRENT VS. VOLTAGE



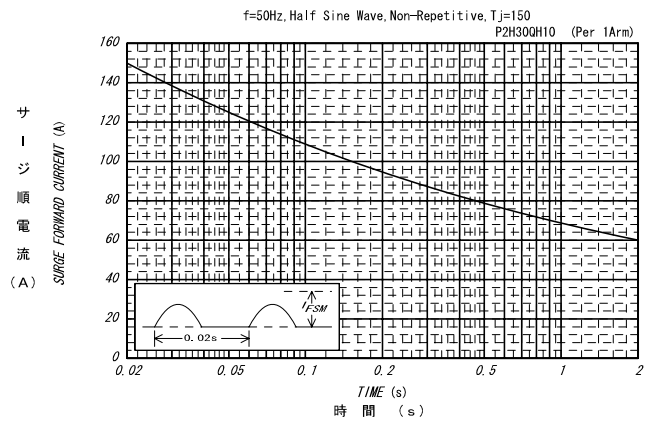
平均逆電力損失  
AVERAGE REVERSE POWER DISSIPATION



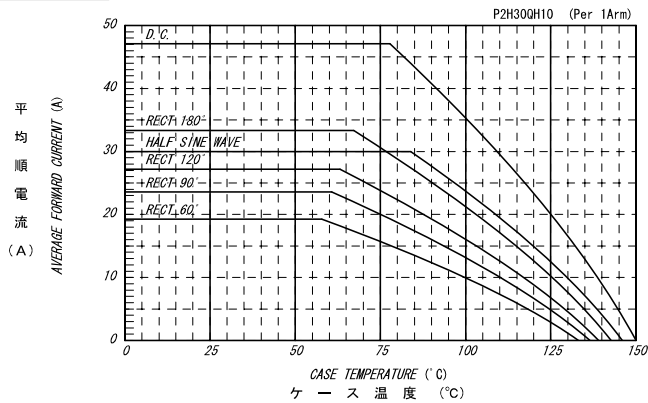
平均順電力損失特性  
AVERAGE FORWARD POWER DISSIPATION



サージ順電流定格  
SURGE CURRENT RATINGS



平均順電流 - ケース温度定格  
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



ピーク逆電流 - ピーク逆電圧特性  
PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

