



SANYO Semiconductors

## DATA SHEET

# SBT250-10J

 — Schottky Barrier Diode (Twin Type · Cathode Common)  

## 100V, 25A Rectifier

### Applications

- High frequency rectification (switching regulators, converters, choppers).

### Features

- Guaranteed up to  $T_j=150^{\circ}\text{C}$ .
- Low forward voltage ( $V_F \text{ max}=0.80\text{V}$ ).
- Short reverse recovery time.
- Low switching noise.
- High reliability due to highly reliable planar structure.
- Attachment workability is good by Mica-less package.

### Specifications

#### Absolute Maximum Ratings at $T_a=25^{\circ}\text{C}$

| Parameter                                | Symbol    | Conditions  | Ratings     | Unit               |
|--|-----------|---|-------------|--------------------|
| Repetitive Peak Reverse Voltage          | $V_{RRM}$ |   | 100         | V                  |
| Nonrepetitive Peak Reverse Surge Voltage | $V_{RSM}$ |   | 105         | V                  |
| Average Output Current                   | $I_O$     | 50Hz resistive load, Sine wave $T_c=42^{\circ}\text{C}$ | 25          | A                  |
| Surge Forward Current                    | $I_{FSM}$ | 50Hz sine wave, 1 cycle                                 | 100         | A                  |
| Junction Temperature                     | $T_j$     |   | -55 to +150 | $^{\circ}\text{C}$ |
| Storage Temperature                      | $T_{stg}$ |   | -55 to +150 | $^{\circ}\text{C}$ |

#### Electrical Characteristics at $T_a=25^{\circ}\text{C}$

| Parameter                 | Symbol        | Conditions                                     | Ratings |     |      | Unit                        |
|---------------------------|---------------|--|---------|-----|------|-----------------------------|
|                           |               |  | min     | typ | max  |                             |
| Reverse Voltage           | $V_R$         | $I_R=3\text{mA}$ , $T_j=25^{\circ}\text{C}^*$  | 100     |     |      | V                           |
| Forward Voltage           | $V_F$         | $I_F=9.5\text{A}$ , $T_j=25^{\circ}\text{C}^*$ |         |     | 0.80 | V                           |
| Reverse Current           | $I_R$         | $V_R=50\text{V}$ , $T_j=25^{\circ}\text{C}^*$  |         |     | 0.3  | mA                          |
| Interterminal Capacitance | C             | $V_R=10\text{V}$ , $T_j=25^{\circ}\text{C}^*$  |         | 280 |      | pF                          |
| Thermal Resistance        | $R_{th(j-c)}$ | Junction-Case : Smoothed DC                    |         |     | 3.4  | $^{\circ}\text{C}/\text{W}$ |

Note) \* : Value per element

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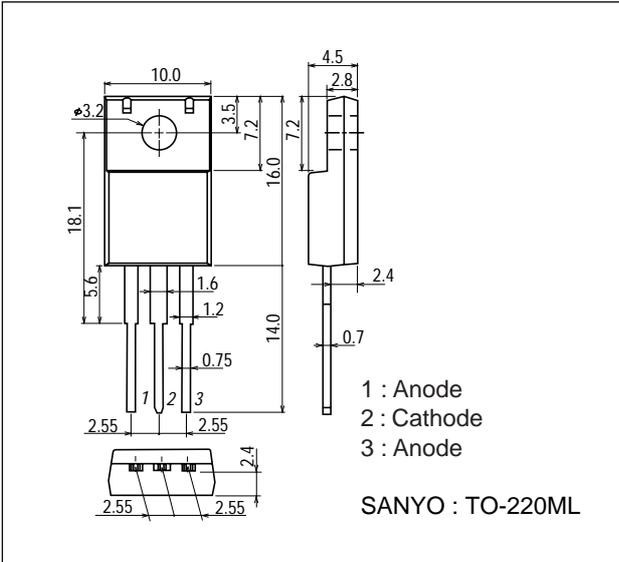
**SANYO Electric Co., Ltd. Semiconductor Company**

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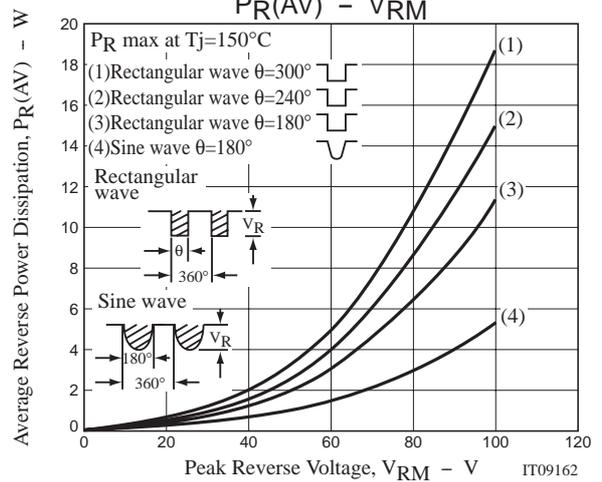
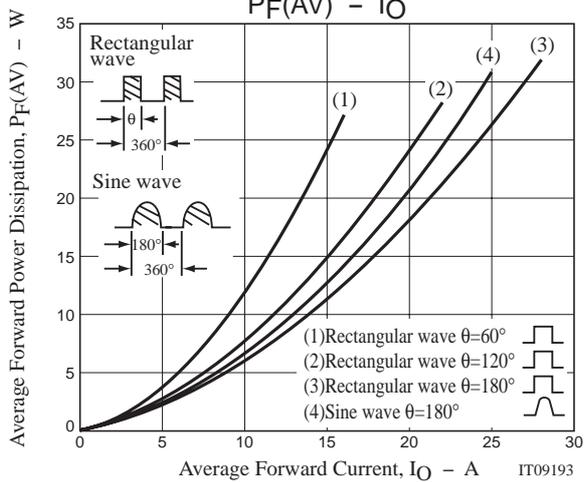
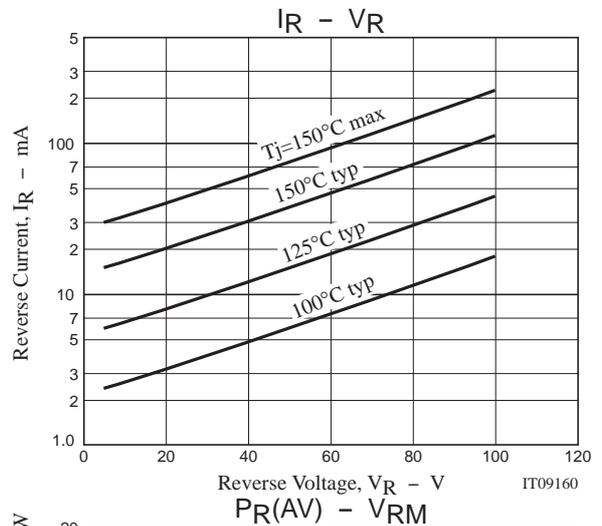
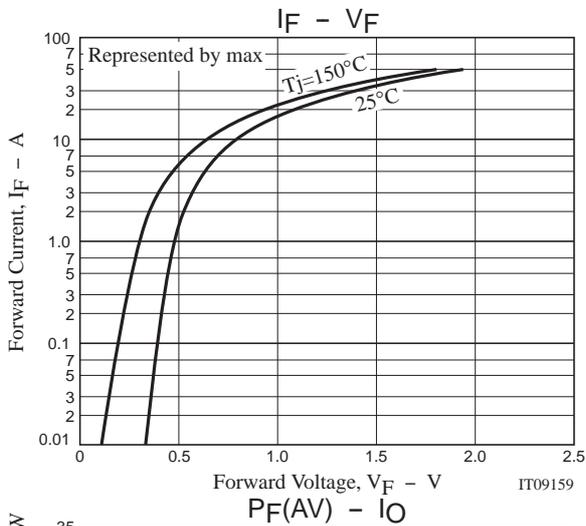
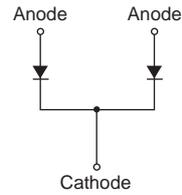
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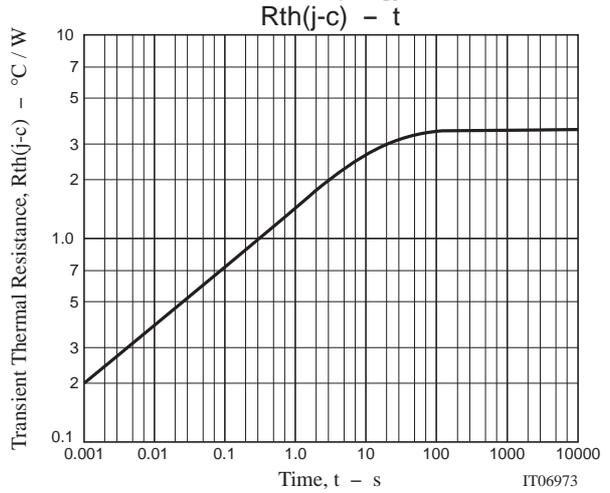
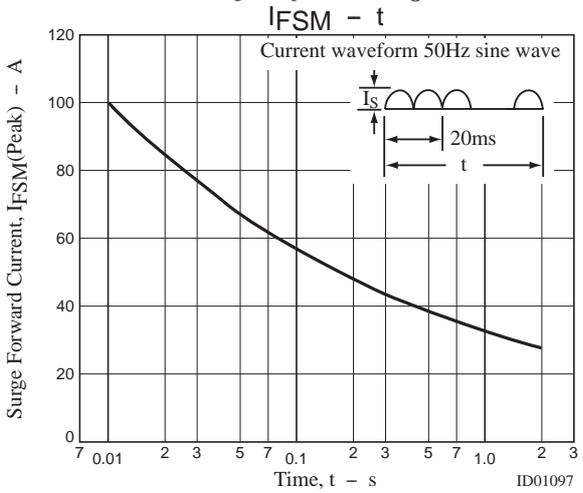
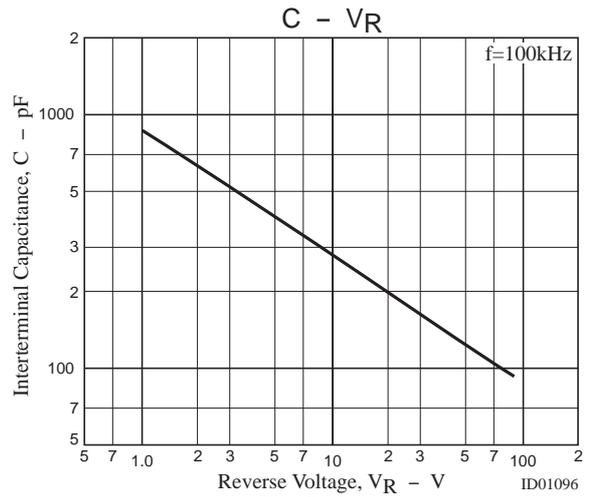
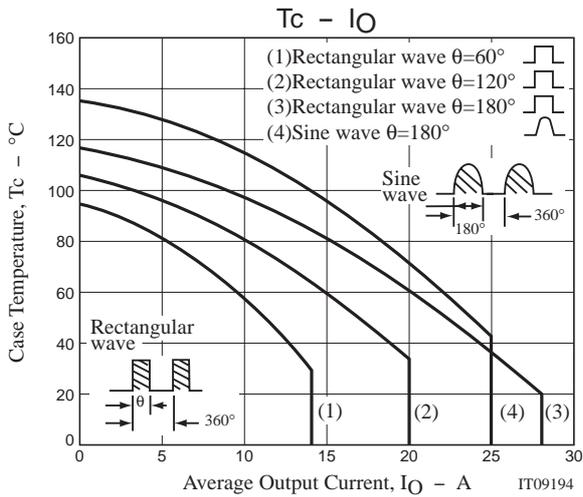
## Package Dimensions

unit : mm  
1178A



## Electrical Connection





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