



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

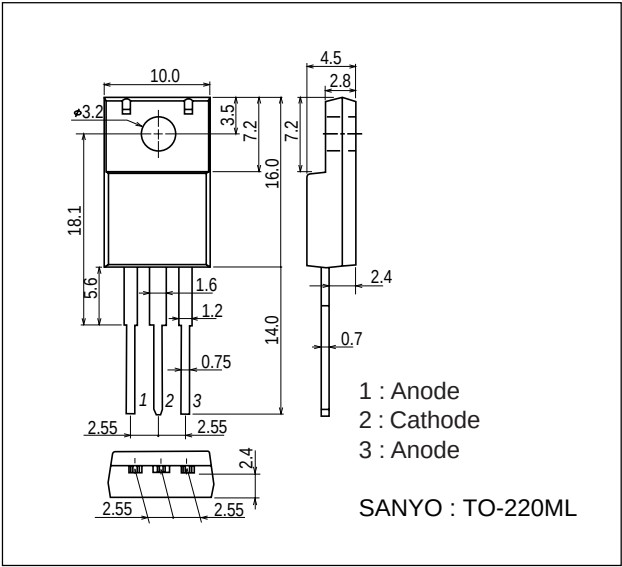
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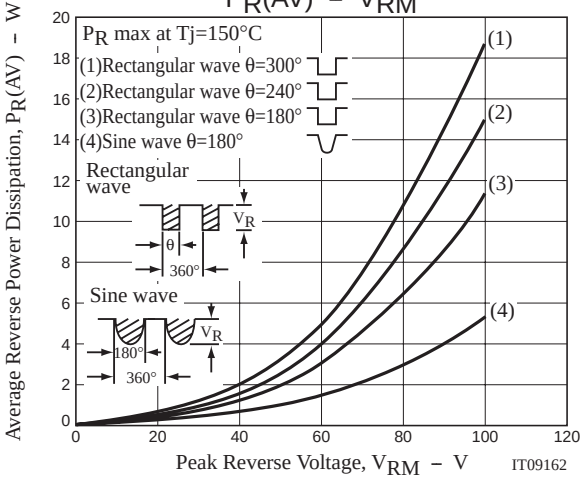
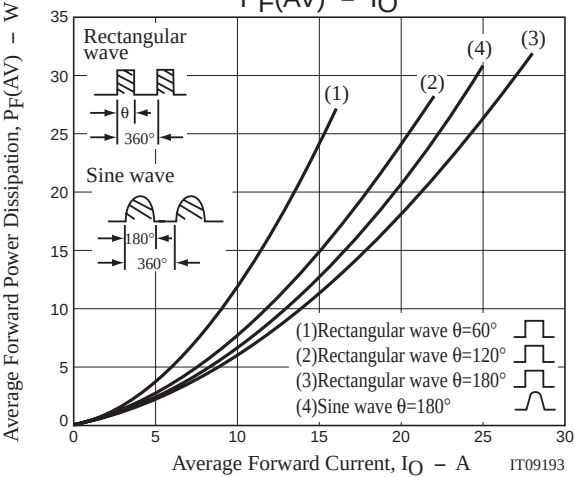
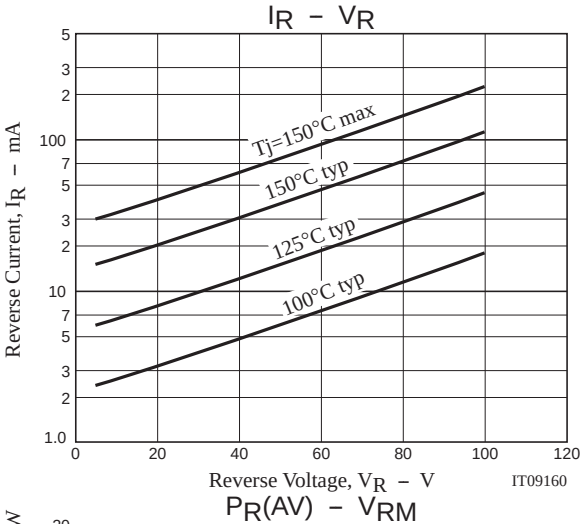
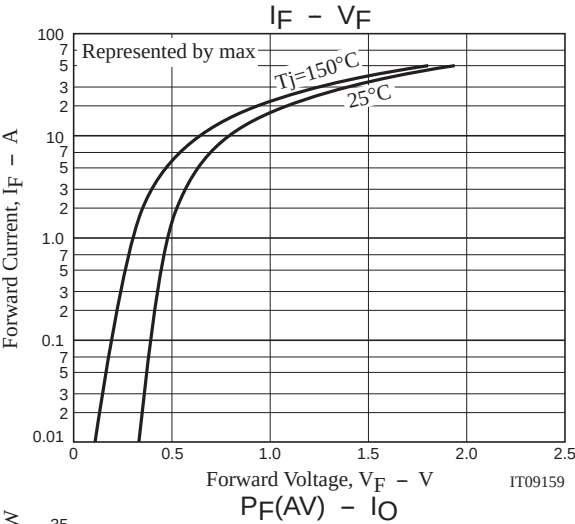
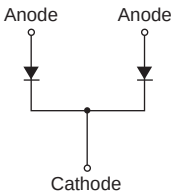
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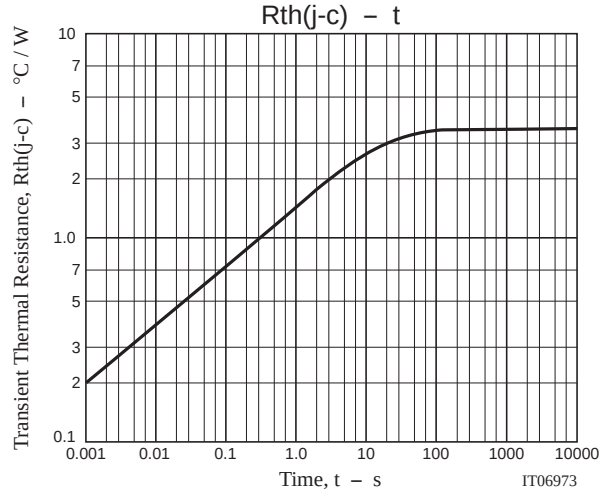
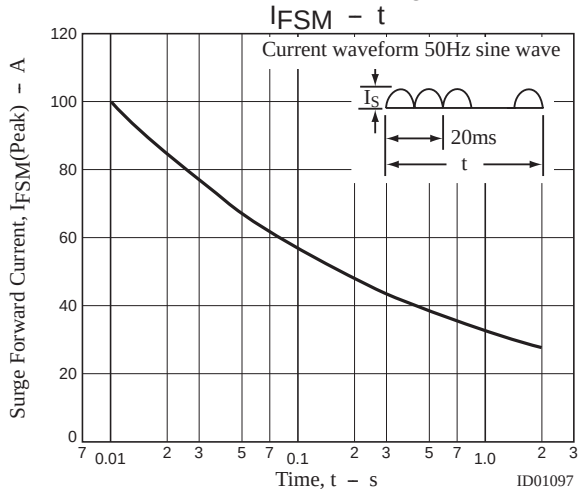
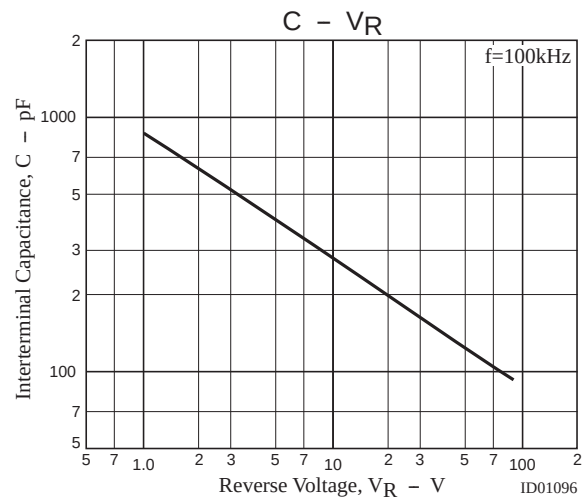
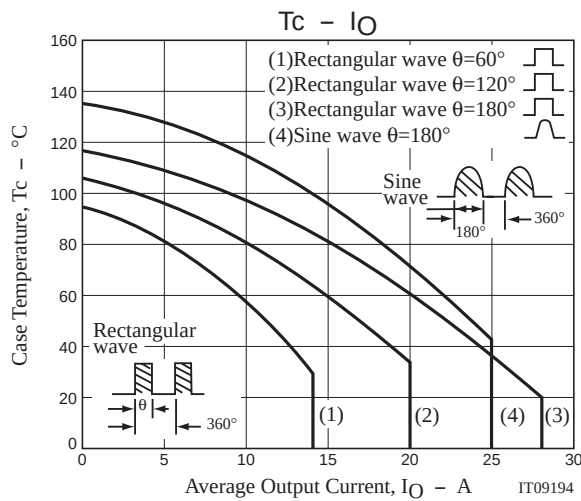
Package Dimensions

unit : mm  
1178A



Electrical Connection





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