



# SBA50-09J

Schottky Barrier Diode (Twin Type · Cathode Common)

## 90V, 5A Rectifier

### Applications

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

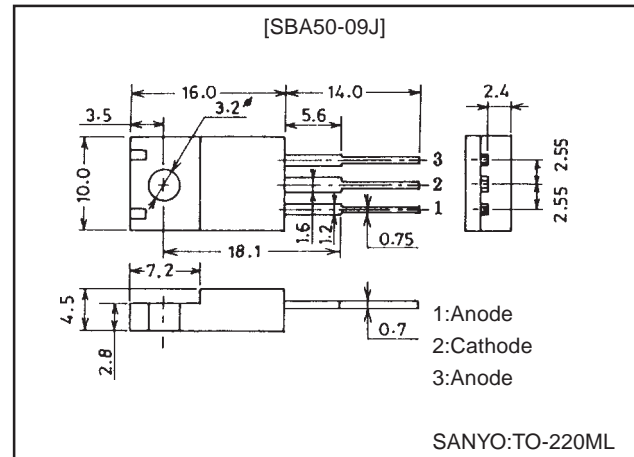
### Features

- Low forward voltage ( $V_F$  max=0.75V).
- Fast reverse recovery time.
- Low switching noise.
- High reliability due to highly reliable planar structure.
- Micaless package facilitating easy mounting.

### Package Dimensions

unit:mm

1178A



### Specifications

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

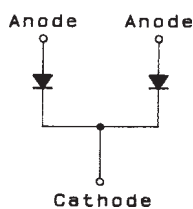
| Parameter                                | Symbol    | Conditions                                   | Ratings     | Unit             |
|--|-----------|--|-------------|------------------|
| Repetitive Peak Reverse Voltage          | $V_{RRM}$ |  | 90          | V                |
| Nonrepetitive Peak Reverse Surge Voltage | $V_{RSM}$ |  | 95          | V                |
| Average Output Current                   | $I_O$     | 50Hz, resistive load, $T_c=94^\circ\text{C}$ | 5           | A                |
| Surge Forward Current                    | $I_{FSM}$ | 50Hz sine wave, 1 cycle                      | 60          | A                |
| Junction Temperature                     | $T_j$     |  | -55 to +125 | $^\circ\text{C}$ |
| Storage Temperature                      | $T_{stg}$ |  | -55 to +125 | $^\circ\text{C}$ |

#### Electrical Characteristics

| Parameter                 | Symbol        | Conditions                                     | Ratings |     |      | Unit               |
|---------------------------|---------------|--|---------|-----|------|--------------------|
|                           |               |  | min     | typ | max  |                    |
| Reverse Voltage           | $V_R$         | $I_R=1\text{mA}$ , $T_j=25^\circ\text{C}$ , *  | 90      |     |      | V                  |
| Forward Voltage           | $V_F$         | $I_F=2.5\text{A}$ , $T_j=25^\circ\text{C}$ , * |         |     | 0.75 | V                  |
| Reverse Current           | $I_R$         | $V_R=45\text{V}$ , $T_j=25^\circ\text{C}$ , *  |         |     | 0.1  | mA                 |
| Interterminal Capacitance | C             | $V_R=10\text{V}$ , $T_j=25^\circ\text{C}$ , *  |         | 90  |      | pF                 |
| Thermal Resistance        | $R_{th(j-c)}$ | Junction-Case:Smoothed DC                      |         |     | 5.0  | $^\circ\text{C/W}$ |

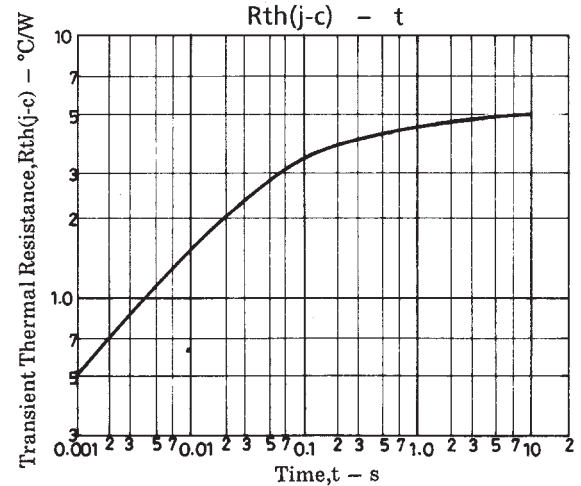
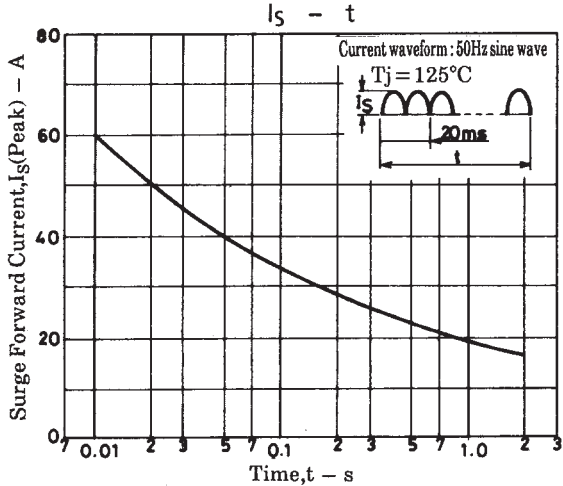
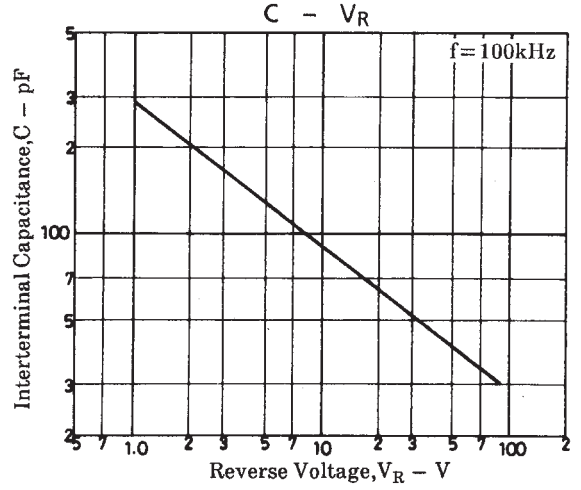
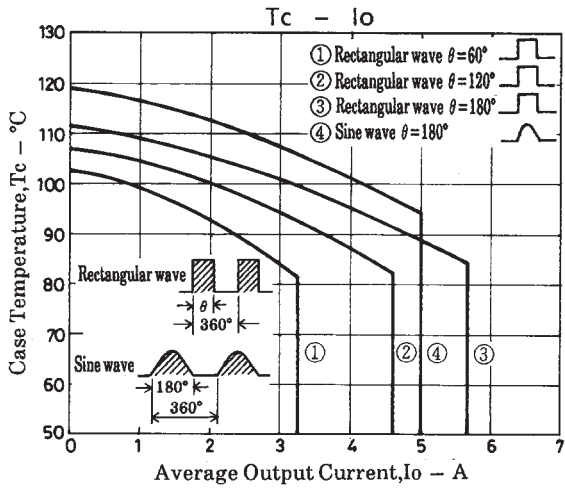
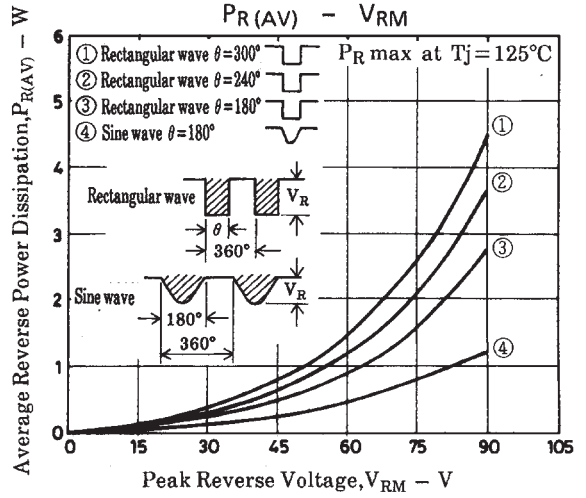
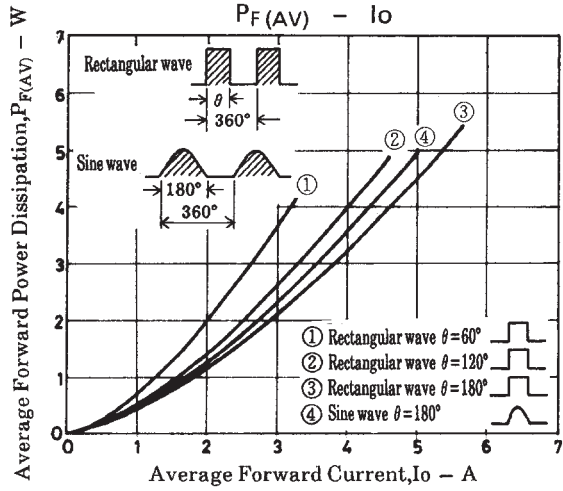
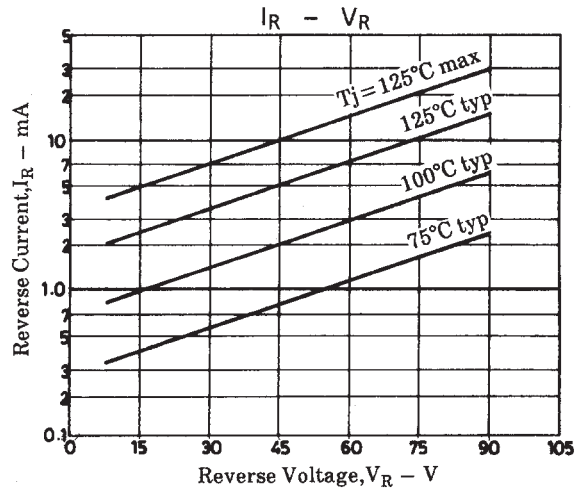
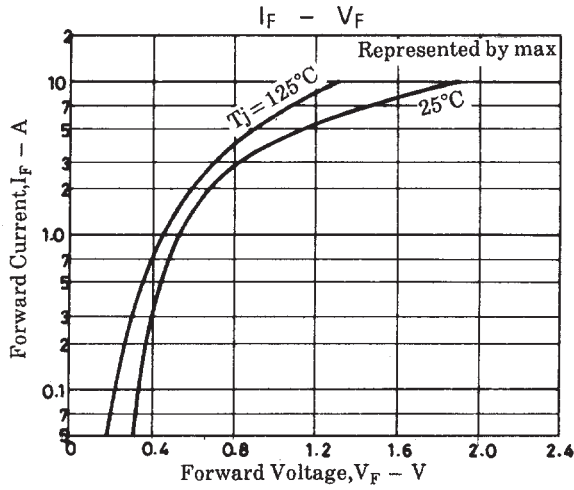
Note\*: Value per element

#### Electrical Connection



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