



# SB60-05K

Schottky Barrier Diode (Twin Type · Cathode Common)

## 50V, 6A Rectifier

### Applications

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

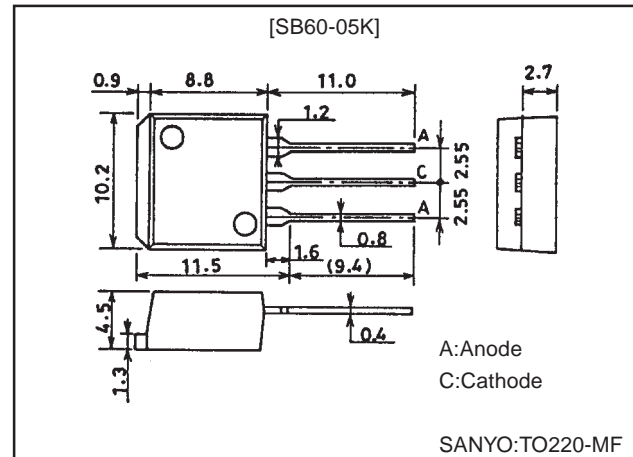
### Features

- Low forward voltage ( $V_F$  max=0.55V).
- Fast reverse recovery time ( $t_{rr}$ =50ns max).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

### Package Dimensions

unit:mm

1199B



### Specifications

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

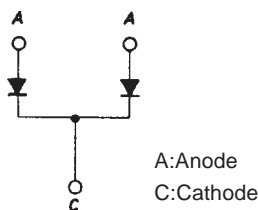
| Parameter                                | Symbol    | Conditions                                    | Ratings     | Unit             |
|--|-----------|---|-------------|------------------|
| Repetitive Peak Reverse Voltage          | $V_{RRM}$ |   | 50          | V                |
| Nonrepetitive Peak Reverse Surge Voltage | $V_{RSM}$ |   | 55          | V                |
| Average Output Current                   | $I_O$     | 50Hz, resistive load, $T_c=110^\circ\text{C}$ | 6           | A                |
| Surge Forward Current                    | $I_{FSM}$ | 50Hz sine wave, 1 cycle                       | 100         | A                |
| Junction Temperature                     | $T_j$     |   | -55 to +125 | $^\circ\text{C}$ |
| Storage Temperature                      | $T_{stg}$ |   | -55 to +125 | $^\circ\text{C}$ |

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

| Parameter             | Symbol     | Conditions  | Ratings |     |      | Unit                      |
|-----------------------|------------|---|---------|-----|------|---------------------------|
|                       |            |   | min     | typ | max  |                           |
| Reverse Voltage       | $V_R$      | $I_R=1.5\text{mA}$ , $T_j=25^\circ\text{C}$ , *                                 | 50      |     |      | V                         |
| Forward Voltage       | $V_F$      | $I_F=3\text{A}$ , $T_j=25^\circ\text{C}$ , *                                    |         |     | 0.55 | V                         |
| Reverse Current       | $I_R$      | $V_R=25\text{V}$ , $T_j=25^\circ\text{C}$ , *                                   |         |     | 0.3  | mA                        |
| Reverse Recovery Time | $t_{rr}$   | $I_F=2\text{A}$ , $T_j=25^\circ\text{C}$ , *, $-dI_F/dt=10\text{A}/\mu\text{s}$ |         |     | 50   | ns                        |
| Thermal Resistance    | $R_{th-c}$ | Junction-Case:Smoothed DC   |         |     | 3    | $^\circ\text{C}/\text{W}$ |

Note)\*: Value per element

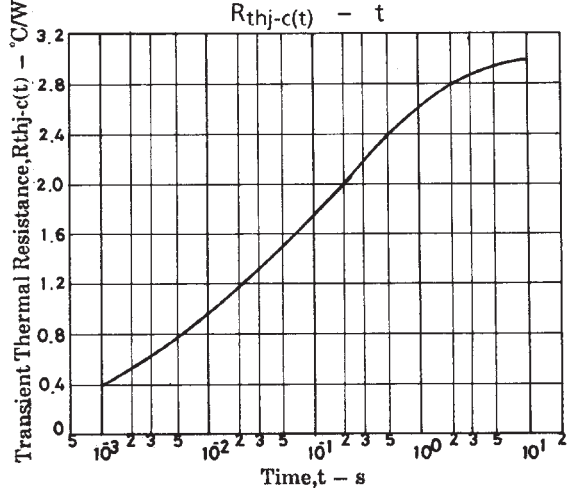
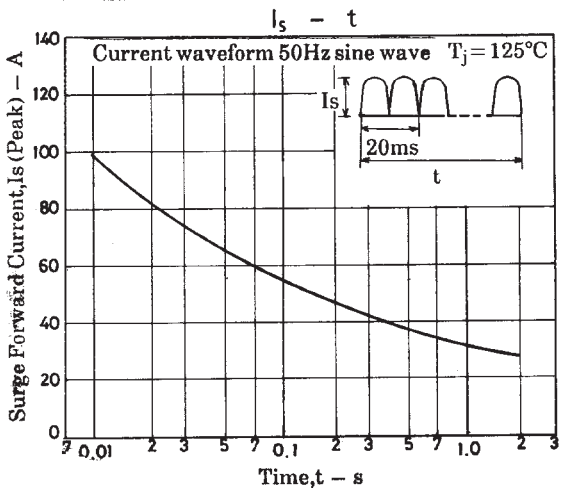
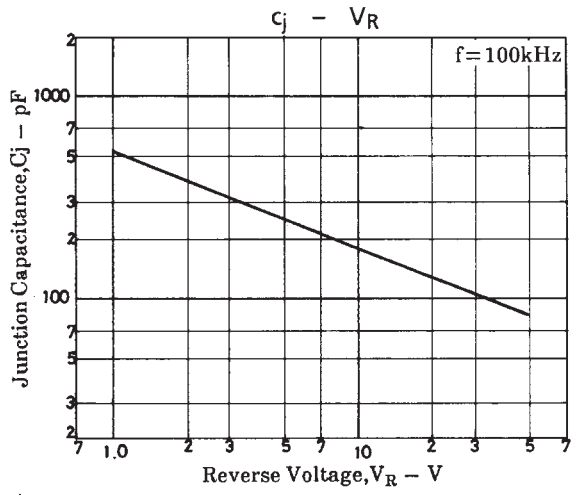
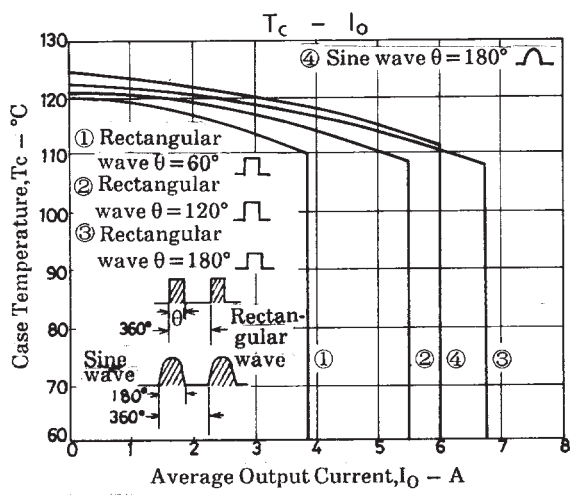
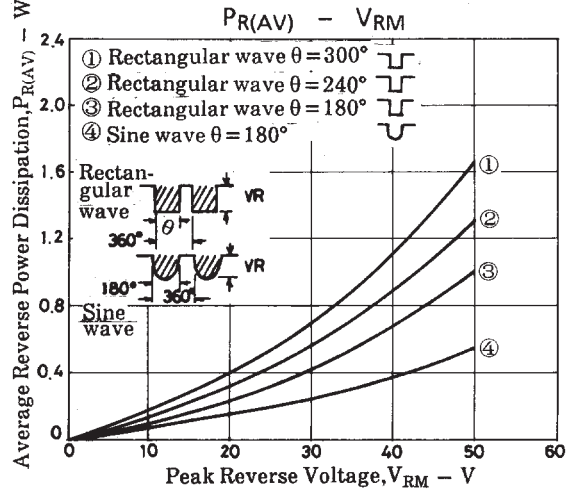
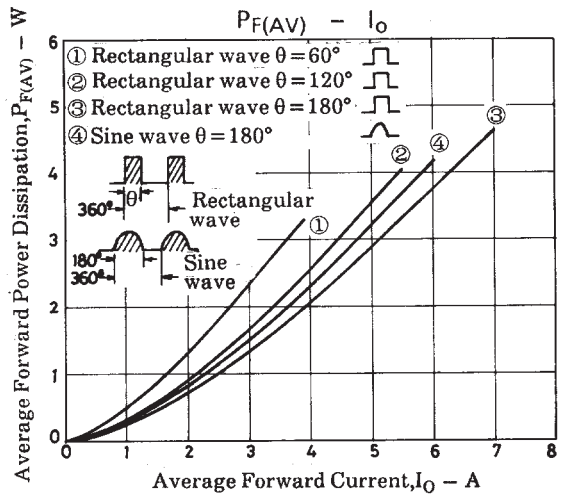
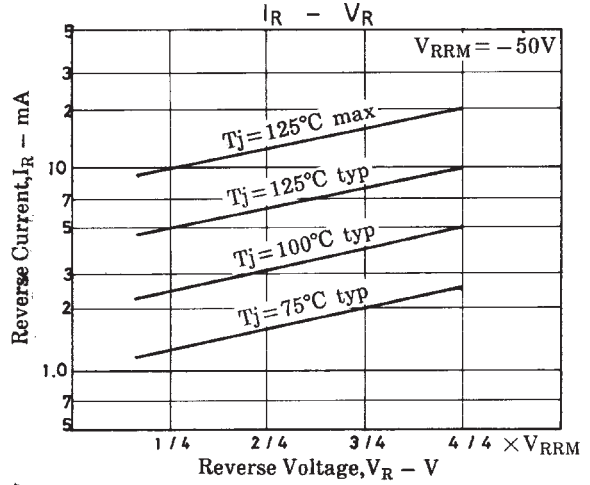
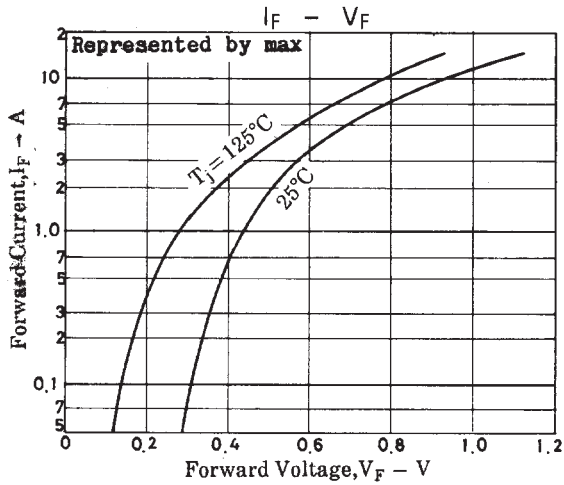
#### Electrical Connection



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