



SB300-09R

Schottky Barrier Diode (Twin Type · Cathode Common)

90V, 30A Rectifier

Applications

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

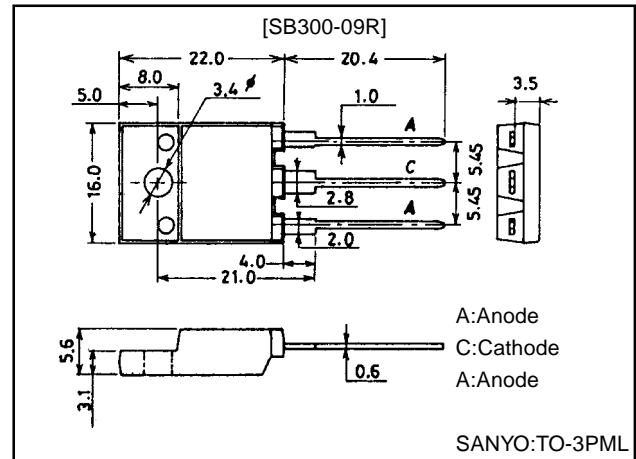
Features

- Low forward voltage (V_F max=0.85V).
- Fast reverse recovery time (t_{rr} max=70ns).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.
- Micaless package facilitating easy mounting.

Package Dimensions

unit:mm

1180



Specifications

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

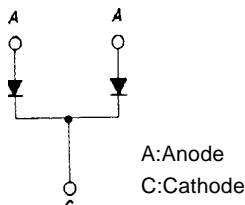
| Parameter | Symbol | Conditions | Ratings | Unit |
|--|-----------|--|-------------|------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | | -90 | V |
| Nonrepetitive Peak Reverse Surge Voltage | V_{RSM} | | -95 | V |
| Average Output Current | I_O | 50Hz, resistive load, $T_c=59^\circ\text{C}$ | 30 | A |
| Surge Forward Current | I_{FSM} | 50Hz sine wave, 1 cycle | 180 | A |
| Junction Temperature | T_j | | -55 to +125 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | | -55 to +125 | $^\circ\text{C}$ |

Electrical Characteristics

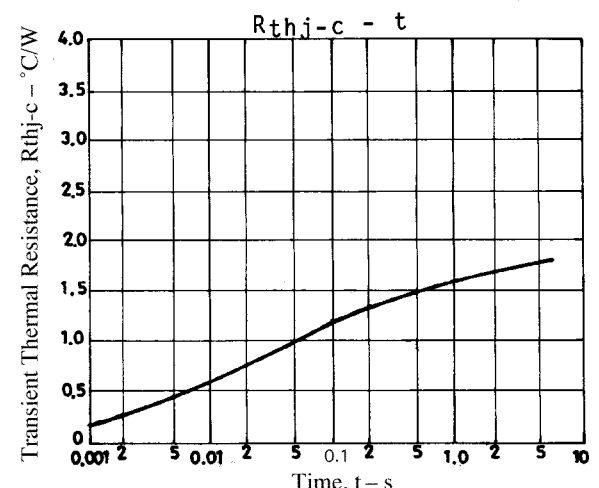
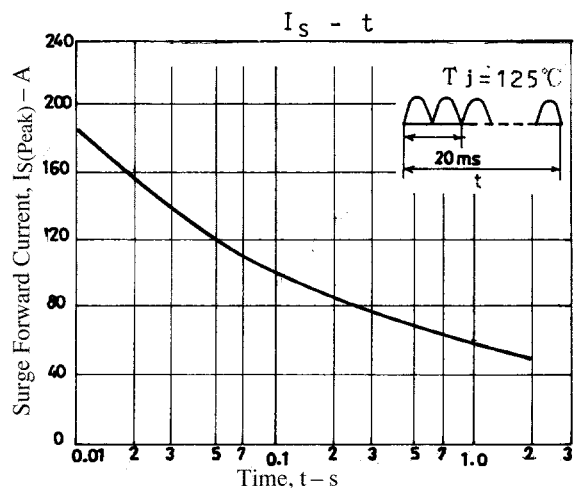
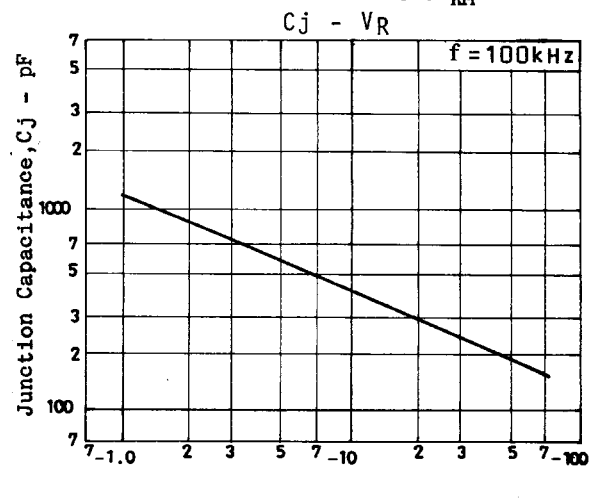
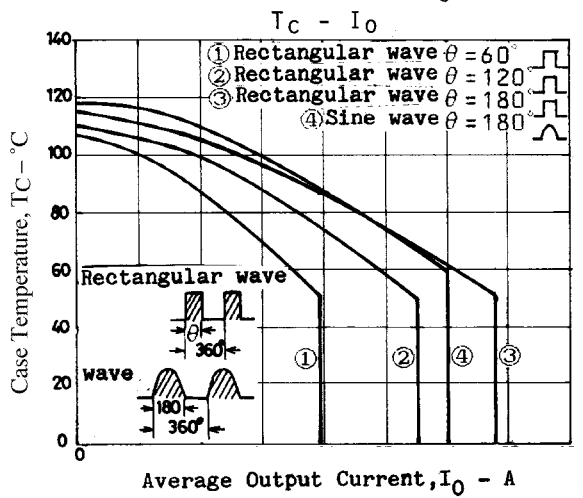
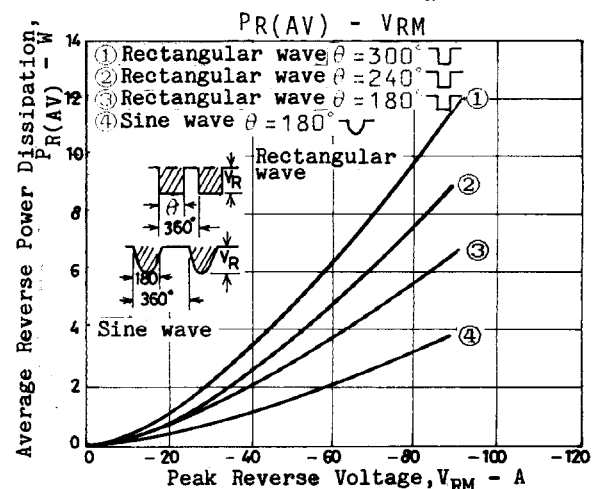
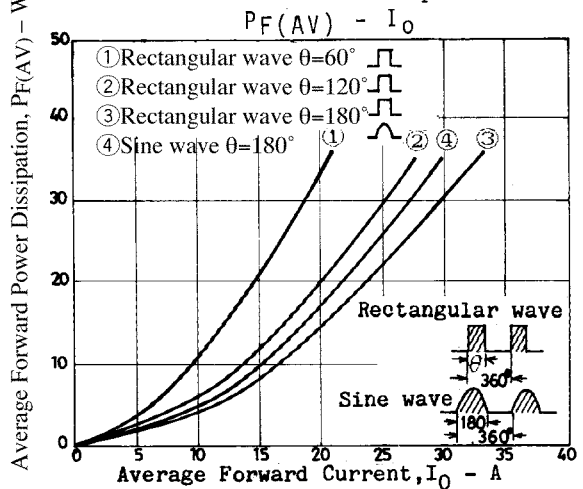
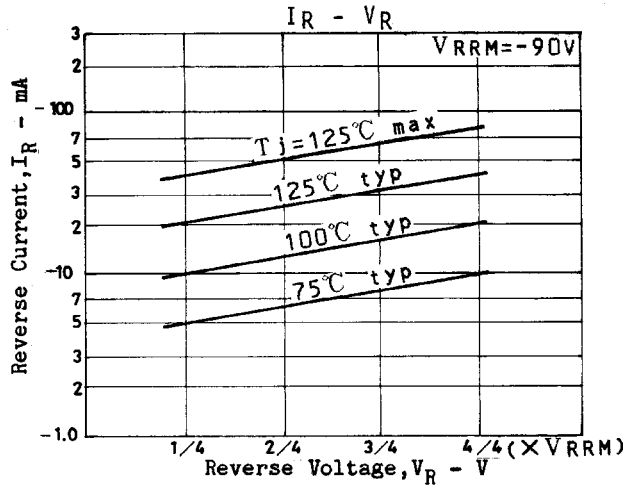
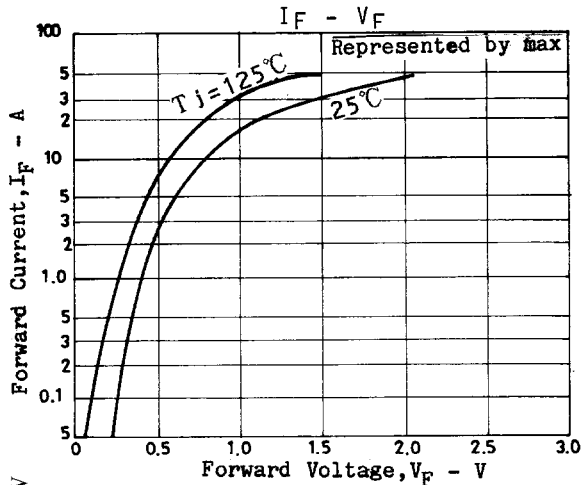
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|-----------------------|--------------|--|---------|-----|------|---------------------------|
| | | | min | typ | max | |
| Reverse Voltage | V_R | $I_R=-6\text{mA}$, $T_j=25^\circ\text{C}^*$ | -90 | | | V |
| Forward Voltage | V_F | $I_F=12\text{A}$, $T_j=25^\circ\text{C}^*$ | | | 0.85 | V |
| Reverse Current | I_R | $V_R=-45\text{V}$, $T_j=25^\circ\text{C}^*$ | | | -1.2 | mA |
| Reverse Recovery Time | t_{rr} | $I_F=2\text{A}$, $T_j=25^\circ\text{C}^*$, $-dI_F/dt=10\text{A}/\mu\text{s}$ | | | 70 | ns |
| Thermal Resistance | R_{th-j-c} | Junction-Case:Smoothed DC | | | 1.7 | $^\circ\text{C}/\text{W}$ |

Note)*:Value per element

Electrical Connection



SB300-09R



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