



Schottky Barrier Diode

**SBE802****100V, 400mA Rectifier**

## Applications

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

## Features

- Low forward voltage ( $V_F$  max=0.7V).
- Fast reverse recovery time ( $t_{rr}$  max=10ns).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

## Specifications

### Absolute Maximum Ratings at $T_a=25^\circ\text{C}$ (Value per element)

| Parameter                                | Symbol    | Conditions              | Ratings     | Unit             |
|--|-----------|-------------------------|-------------|------------------|
| Repetitive Peak Reverse Voltage          | $V_{RRM}$ |                         | 100         | V                |
| Nonrepetitive Peak Reverse Surge Voltage | $V_{RSM}$ |                         | 100         | V                |
| Average Output Current                   | $I_O$     |                         | 400         | mA               |
| Surge Forward Current                    | $I_{FSM}$ | 50Hz sine wave, 1 cycle | 5           | A                |
| Junction Temperature                     | $T_j$     |                         | -55 to +125 | $^\circ\text{C}$ |
| Storage Temperature                      | $T_{stg}$ |                         | -55 to +125 | $^\circ\text{C}$ |

### Electrical Characteristics at $T_a=25^\circ\text{C}$ (Value per element)

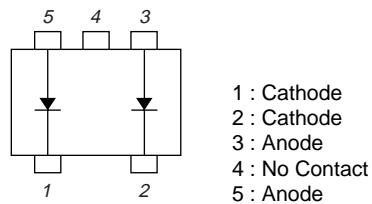
| Parameter                 | Symbol        | Conditions   | Ratings |     |      | Unit               |
|---------------------------|---------------|--|---------|-----|------|--------------------|
|                           |               |  | min     | typ | max  |                    |
| Reverse Voltage           | $V_R$         | $I_R=200\mu\text{A}$                                 | 100     |     |      | V                  |
| Forward Voltage           | $V_F$         | $I_F=200\text{mA}$                                   |         | 0.5 | 0.55 | V                  |
|                           |               | $I_F=400\text{mA}$                                   |         |     | 0.7  | V                  |
| Reverse Current           | $I_R$         | $V_R=45\text{V}$                                     |         |     | 50   | $\mu\text{A}$      |
| Interterminal Capacitance | C             | $V_R=10\text{V}$ , $f=1\text{MHz}$                   |         | 20  |      | pF                 |
| Reverse Recovery Time     | $t_{rr}$      | $I_F=I_R=100\text{mA}$ , See specified Test Circuit. |         |     | 10   | ns                 |
| Thermal Resistance        | $R_{th(j-a)}$ | Mounted on a ceramic board (600mm $\times$ 0.8mm)    |         |     | 110  | $^\circ\text{C/W}$ |

Marking : SA

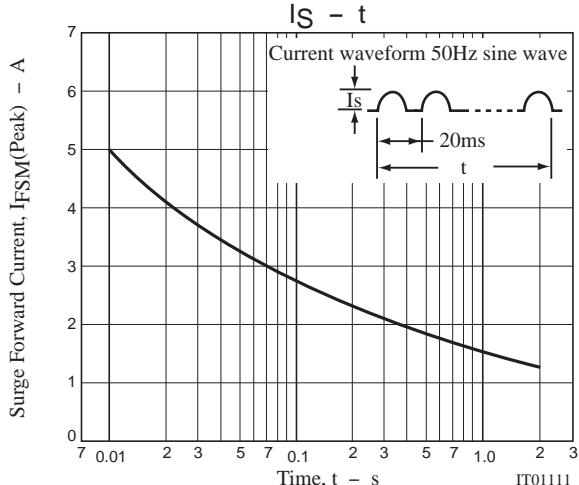
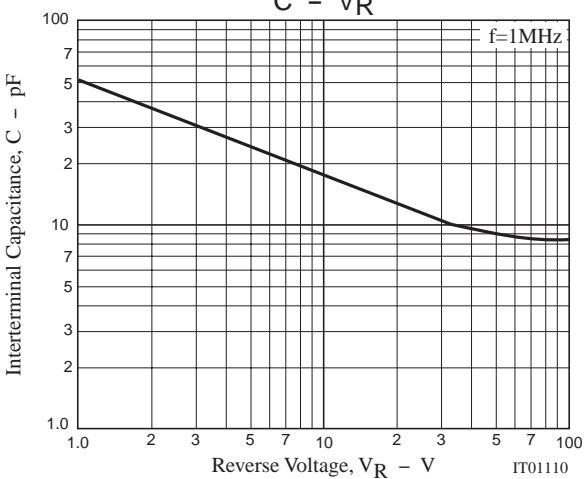
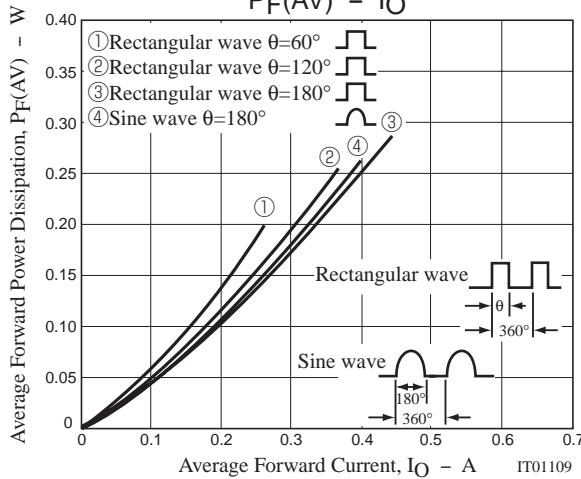
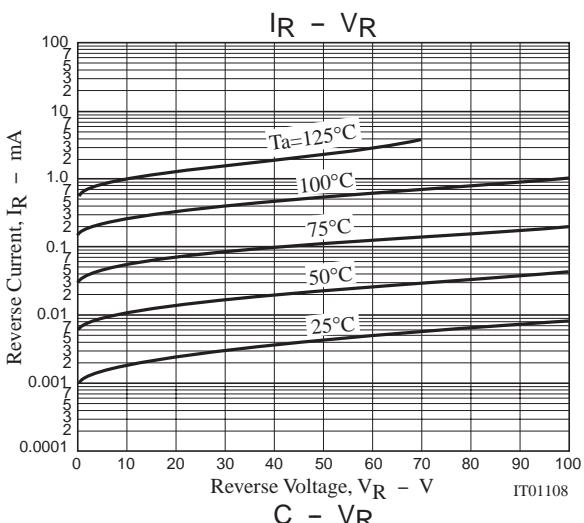
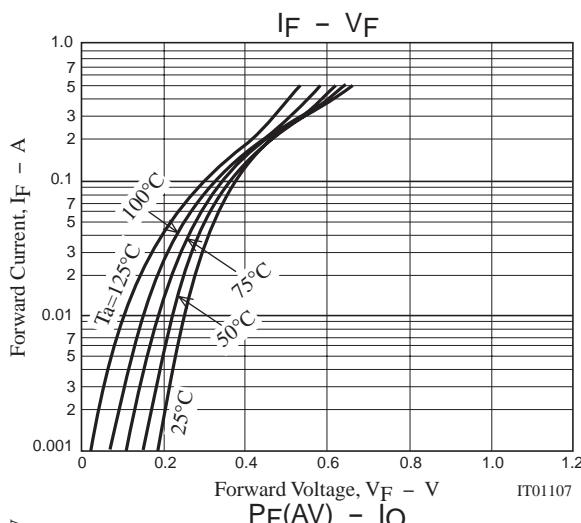
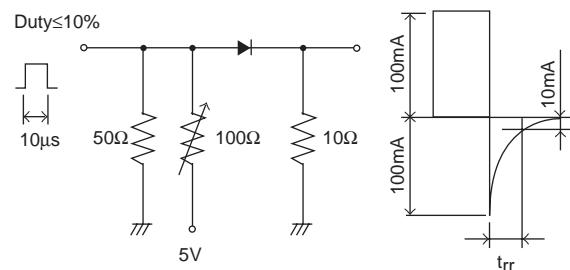
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# SBE802

## Electrical Connection



## $t_{rr}$ Test Circuit



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