



# SB01W05C

Shottky Barrier Diode (Twin Type · Cathode Common)

## 50V, 100mA Rectifier

### Applications

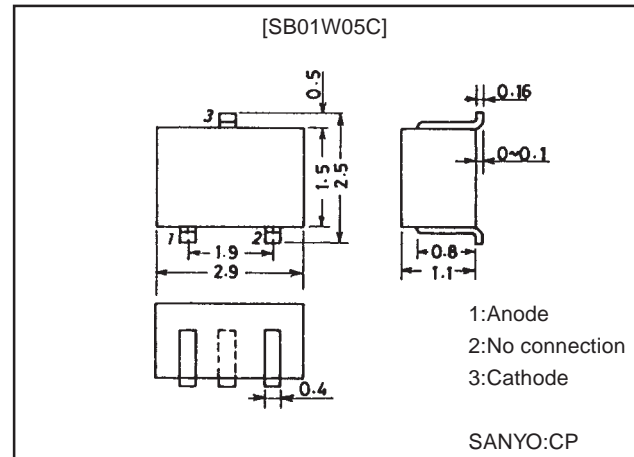
- High frequency rectification (switching regulators, converters, choppers).

### Features

- Low forward voltage ( $V_F$  max=0.55V).
- Fast reverse recovery time ( $t_{rr}$  max=10ns).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

### Package Dimensions

unit:mm  
1169A



### Specifications

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

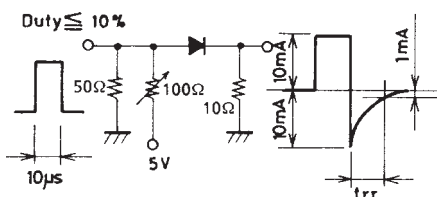
| Parameter                                | Symbol    | Conditions             | Ratings     | Unit             |
|--|-----------|------------------------|-------------|------------------|
| Repetitive Peak Reverse Voltage          | $V_{RRM}$ |                        | 50          | V                |
| Nonrepetitive Peak Reverse Surge Voltage | $V_{RSM}$ |                        | 55          | V                |
| Average Output Current                   | $I_O$     |                        | 100         | mA               |
| Surge Forward Current                    | $I_{FSM}$ | 50Hz sine wave, 1cycle | 2           | 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)

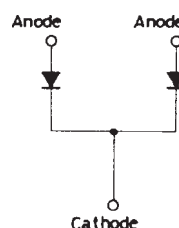
| Parameter                 | Symbol    | Conditions   | Ratings |     |      | Unit               |
|---------------------------|-----------|--|---------|-----|------|--------------------|
|                           |           |  | min     | typ | max  |                    |
| Reverse Voltage           | $V_R$     | $I_R=50\mu\text{A}$  | 50      |     |      | V                  |
| Forward Voltage           | $V_F$     | $I_F=100\text{mA}$   |         |     | 0.55 | V                  |
| Reverse Current           | $I_R$     | $V_R=25\text{V}$   |         |     | 15   | $\mu\text{A}$      |
| Interterminal Capacitance | C         | $V_R=10\text{V}$ , $f=1\text{MHz}$   |         | 4.4 |      | pF                 |
| Reverse Recovery Time     | $t_{rr}$  | $I_F=I_R=10\text{mA}$ , See specified Test Circuit                                   |         |     | 10   | ns                 |
| Thermal Resistance        | Rthj-a(1) |  |         | 560 |      | $^\circ\text{C/W}$ |
|                           | Rthj-a(2) | Mounted on Cu-foild area of $16\text{mm}^2 \times 0.2\text{mm}$ on glass epoxy board |         | 410 |      | $^\circ\text{C/W}$ |

· Marking:AH

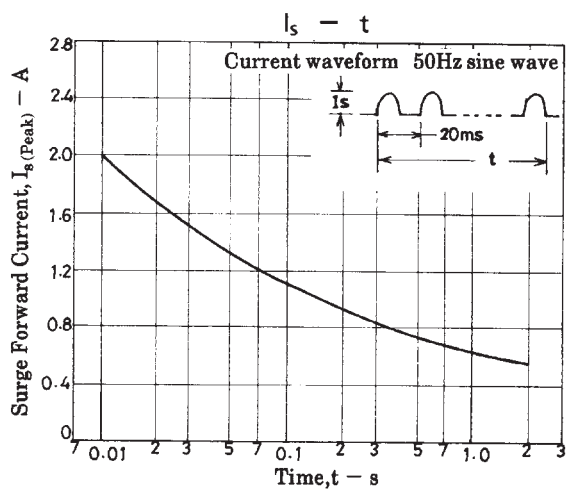
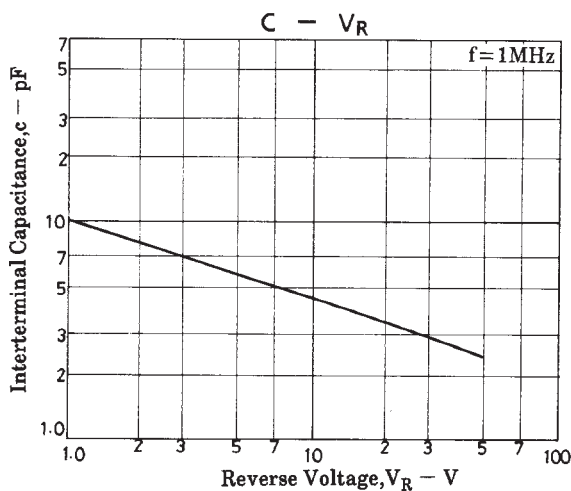
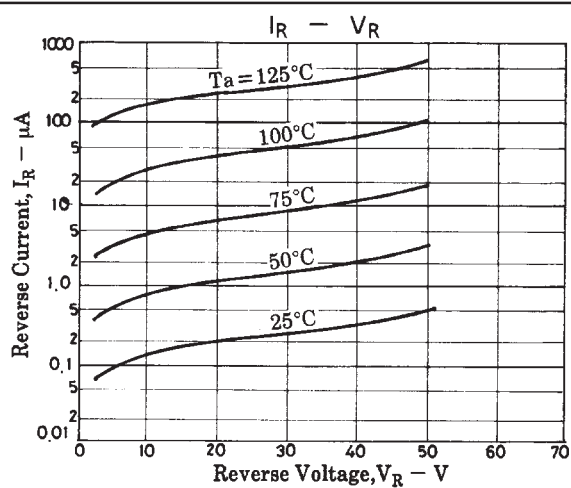
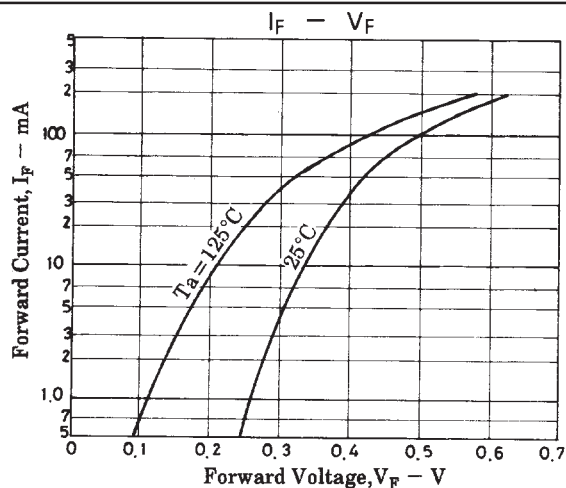
### t<sub>rr</sub> Test Circuit



### Electrical Connection



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