



SANYO Semiconductors

## DATA SHEET

# SS0503SH

 — Schottky Barrier Diode  
**30V, 0.5A Rectifier**

## Applications

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

## Features

- Low forward voltage ( $I_F=0.3A$ ,  $V_F \text{ max}=0.42V$ ) ( $I_F=0.5A$ ,  $V_F \text{ max}=0.47V$ ).
- Ultrasmall package permitting applied sets to be small and slim.

## Specifications

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

| Parameter                                | Symbol    | Conditions              | Ratings     | Unit             |
|--|-----------|-------------------------|-------------|------------------|
| Repetitive Peak Reverse Voltage          | $V_{RRM}$ |                         | 30          | V                |
| Nonrepetitive Peak Reverse Surge Voltage | $V_{RSM}$ |                         | 30          | V                |
| Average Output Current                   | $I_O$     |                         | 0.5         | A                |
| 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 $T_a=25^\circ\text{C}$

| Parameter                 | Symbol   | Conditions   | Ratings |      |      | Unit          |
|---------------------------|----------|--|---------|------|------|---------------|
|                           |          |  | min     | typ  | max  |               |
| Reverse Voltage           | $V_R$    | $I_R=0.5\text{mA}$                                   | 30      |      |      | V             |
| Forward Voltage           | $V_{F1}$ | $I_F=0.3A$   |         | 0.37 | 0.42 | V             |
|                           | $V_{F2}$ | $I_F=0.5A$   |         | 0.42 | 0.47 | V             |
| Reverse Current           | $I_R$    | $V_R=15V$  |         |      | 120  | $\mu\text{A}$ |
| Interterminal Capacitance | C        | $V_R=10V$ , $f=1\text{MHz}$                          |         | 13   |      | pF            |
| Reverse Recovery Time     | $t_{rr}$ | $I_F=I_R=100\text{mA}$ , See specified Test Circuit. |         |      | 10   | ns            |

Marking : SB

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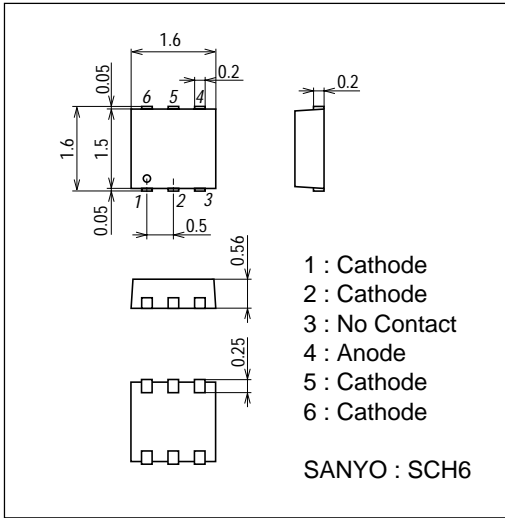
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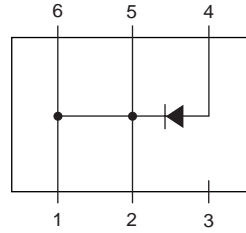
# SS0503SH

## Package Dimensions

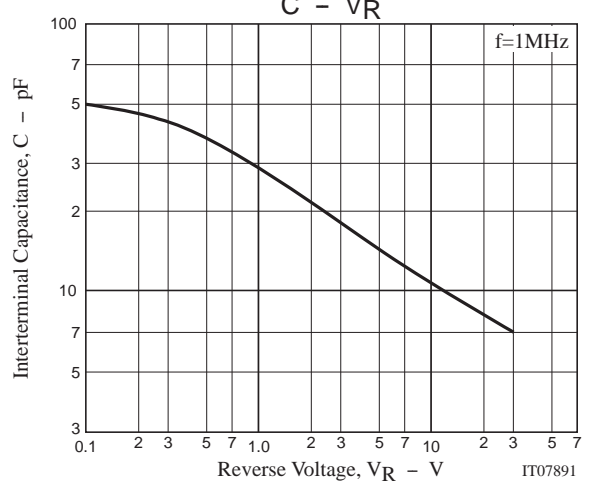
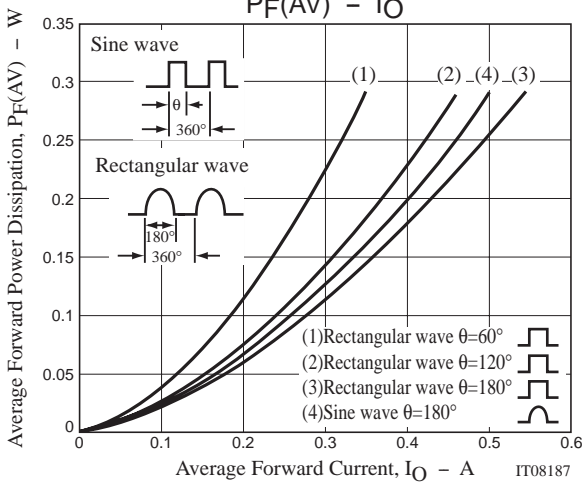
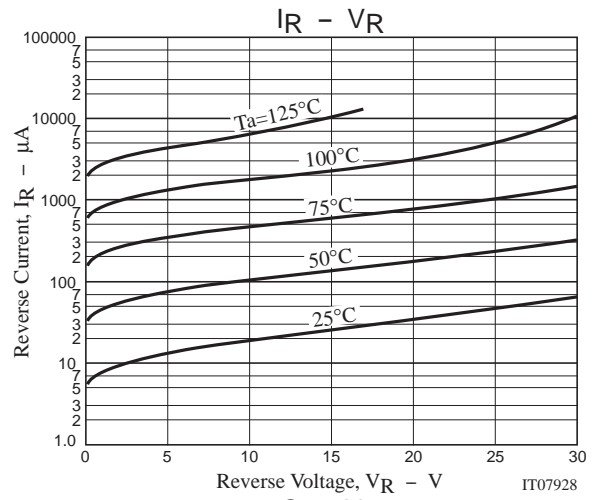
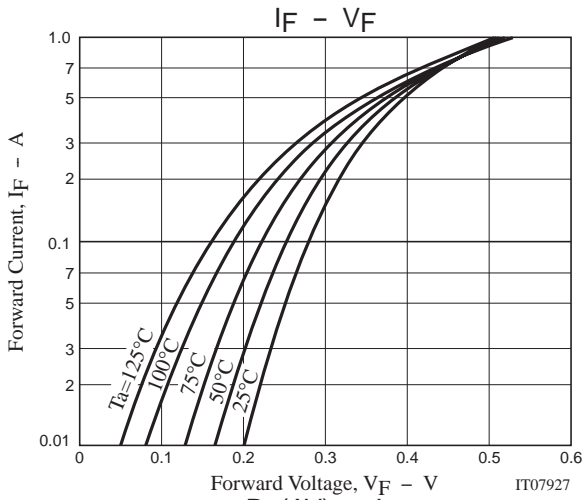
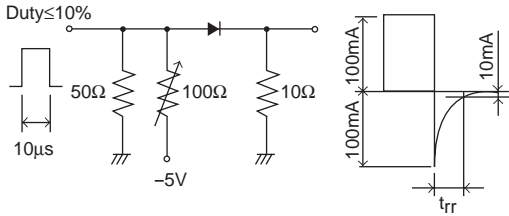
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1329A



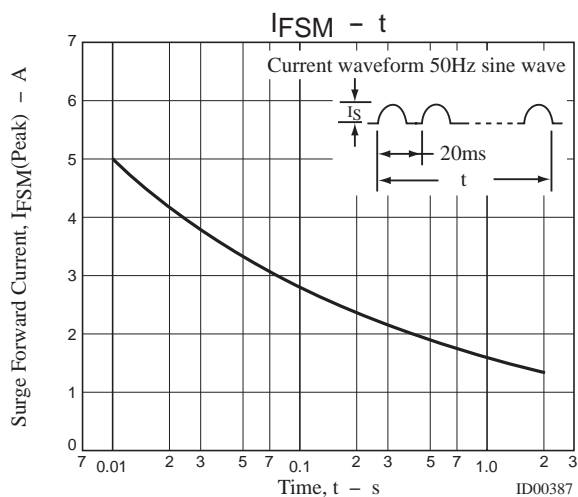
## Electrical Connection(Top view)



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



## SS0503SH



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