

## SB007W03S

Schottky Barrier Diode (Twin Type · Cathode Common)

# 30V, 70mA Rectifier

## **Applications**

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

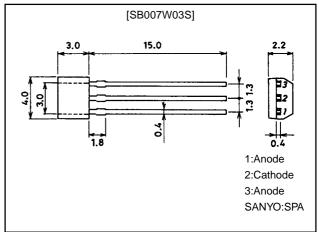
### **Features**

- · 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

1129A



## **Specifications**

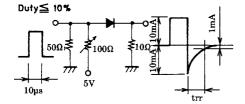
### Absolute Maximum Ratings at Ta = 25°C (Value per element)

| Parameter                                 | Symbol           | Conditions              | Ratings     | Unit |
|---|------------------|-------------------------|-------------|------|
| Repetitive Peak Reverse Voltage           | V <sub>RRM</sub> |                         | 30          | V    |
| Non-repetitive Peak Reverse Surge Voltage | VRSM             |                         | 35          | V    |
| Average Output Current                    | IO               |                         | 70          | mA   |
| Surge Forward Current                     | I <sub>FSM</sub> | 50Hz sine wave, 1 cycle | 2           | Α    |
| Junction Temperature                      | Tj               |                         | -55 to +125 | °C   |
| Storage Temperature                       | Tstg             |                         | -55 to +125 | °C   |

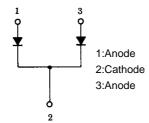
#### **Electrical Characteristics at Ta = 25°C (Value per element)**

| Parameter                 | Symbol          | Conditions   | Ratings |     |      | Unit |
|---------------------------|-----------------|--|---------|-----|------|------|
|                           | Symbol          |  | min     | typ | max  | Onit |
| Reverse Voltage           | VR              | I <sub>R</sub> =20µA   | 30      |     |      | V    |
| Forward Voltage           | ٧F              | I <sub>F</sub> =70mA   |         |     | 0.55 | V    |
| Reverse Current           | I <sub>R</sub>  | V <sub>R</sub> =15V  |         |     | 5    | μΑ   |
| Interterminal Capacitance | С               | V <sub>R</sub> =10V, f=1MHz                                      |         | 3.5 |      | pF   |
| Reverse Recovery Time     | t <sub>rr</sub> | I <sub>F</sub> =I <sub>R</sub> =10mA, See specified Test Circuit |         |     | 10   | ns   |
| Thermal Resistance        | Rth(j-a)        |  | 450     |     |      | °C/W |

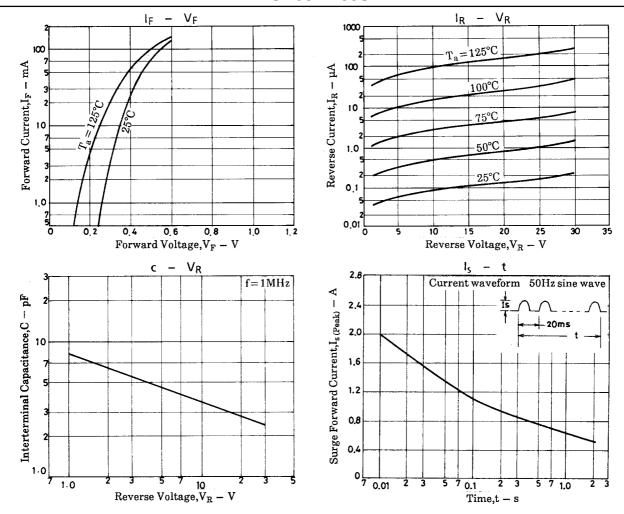
#### t<sub>rr</sub> Test Circuiit



#### **Electrical Connection**



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