



**SB07W03V**

**30V, 700mA Rectifier**

**Applications**

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

**Features**

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

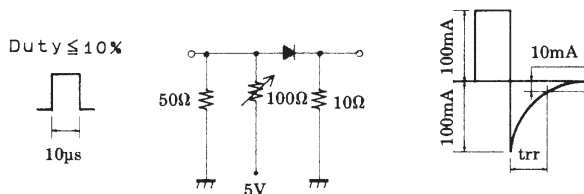
**Absolute Maximum Ratings** at  $T_a=25^\circ\text{C}$  (Value per element)

|                                 |           |                         | unit             |
|---------------------------------|-----------|-------------------------|------------------|
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | 30                      | V                |
| Nonrepetitive Peak Reverse      | $V_{RSM}$ | 35                      | V                |
| Surge Voltage                   |           |                         |                  |
| Average Output Current          | $I_o$     | 700                     | mA               |
| Surge Forward Current           | $I_{FSM}$ | 5                       | A                |
|                                 |           | 50Hz sine wave, 1 cycle |                  |
| Junction Temperature            | $T_j$     | -55 to +125             | $^\circ\text{C}$ |
| Storage Temperature             | $T_{stg}$ | -55 to +125             | $^\circ\text{C}$ |

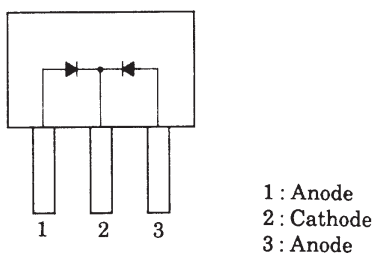
**Electrical Characteristics** at  $T_a=25^\circ\text{C}$  (Value per element)

|                           |             |   | min | typ | max  | unit               |
|---------------------------|-------------|---|-----|-----|------|--------------------|
| Reverse Voltage           | $V_R$       | $I_R=300\mu\text{A}$                                    | 30  |     |      | V                  |
| Forward Voltage           | $V_F$       | $I_F=700\text{mA}$                                      |     |     | 0.55 | V                  |
| Reverse Current           | $I_R$       | $V_R=15\text{V}$  |     |     | 50   | $\mu\text{A}$      |
| Interterminal Capacitance | c           | $V_R=10\text{V}, f=1\text{MHz}$                         |     | 28  |      | pF                 |
| Reverse Recovery Time     | $t_{rr}$    | $I_F=I_R=100\text{mA}$ ,<br>See specified Test Circuit. |     |     | 10   | ns                 |
| Thermal Resistance        | $R_{thj-a}$ |   |     | 120 |      | $^\circ\text{C/W}$ |

**$t_{rr}$  Test Circuit**

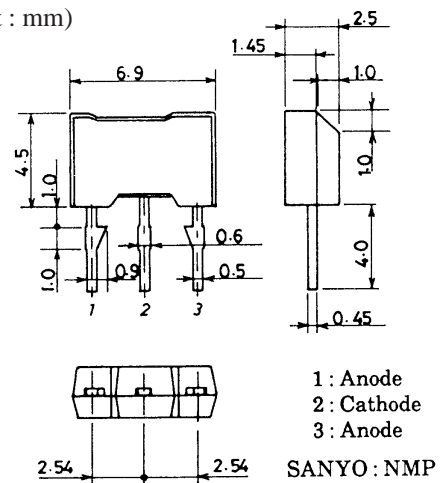


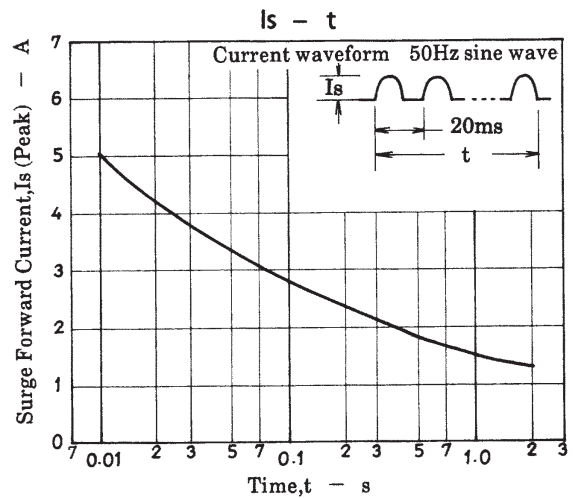
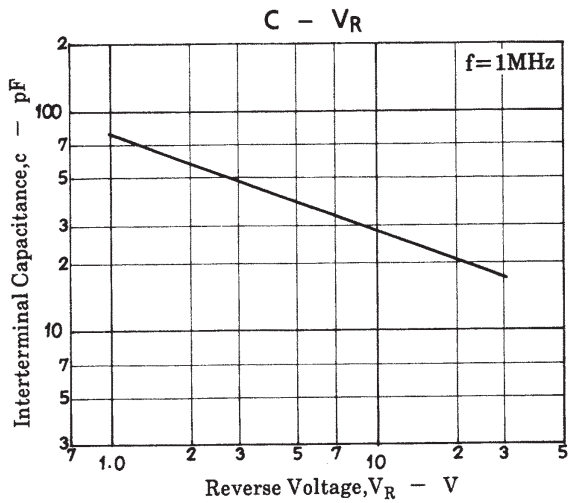
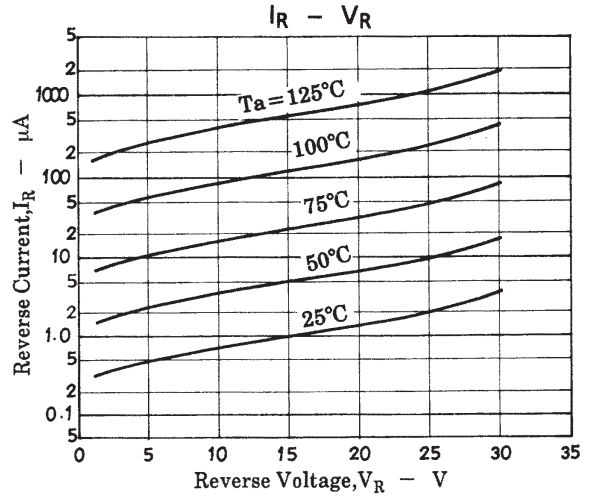
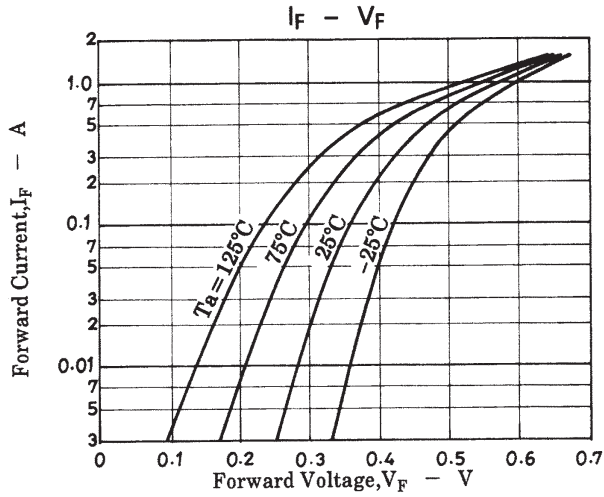
**Electrical Connection**



**Package Dimensions** 1238A

(unit : mm)





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