

**SANYO****SB20-05Z**

Schottky Barrier Diode

**50V, 2A Rectifier****Applications**

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

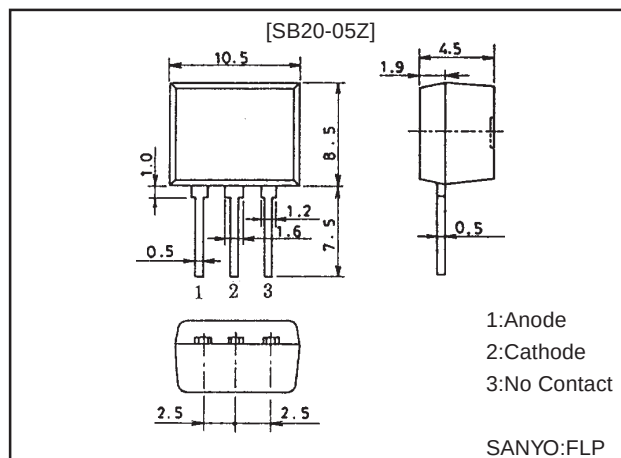
**Features**

- Low forward voltage ( $V_F$  max=0.55V).
- Fast reverse recovery time ( $t_{rr}$  max=20ns).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

**Package Dimensions**

unit:mm

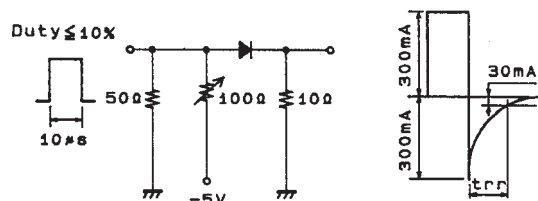
1242A

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

| 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                   | $I_O$     |                         | 2           | A                |
| Surge Forward Current                    | $I_{FSM}$ | 50Hz sine wave, 1 cycle | 20          | A                |
| Junction Temperature                     | $T_j$     |                         | -55 to +125 | $^\circ\text{C}$ |
| Storage Temperature                      | $T_{stg}$ |                         | -55 to +125 | $^\circ\text{C}$ |

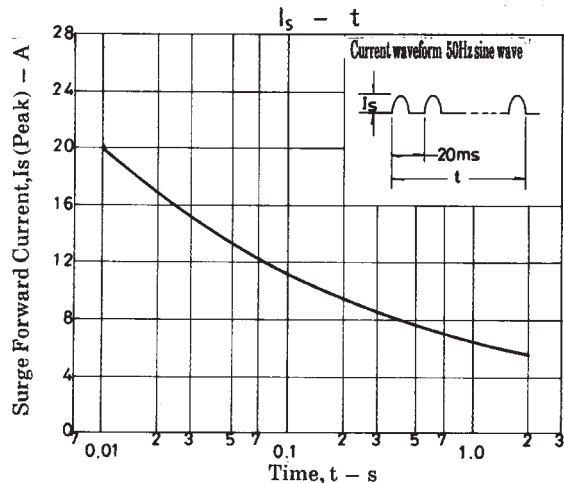
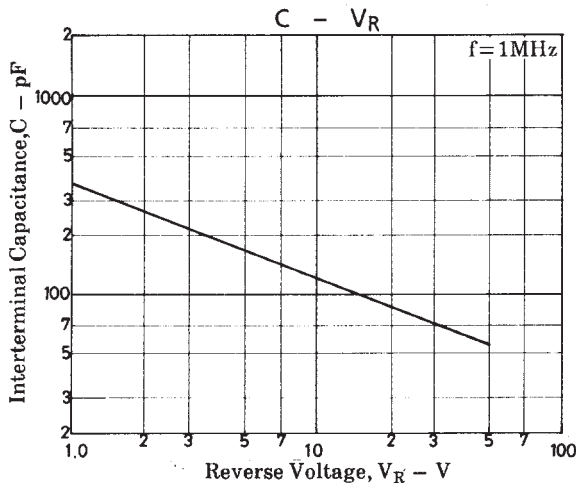
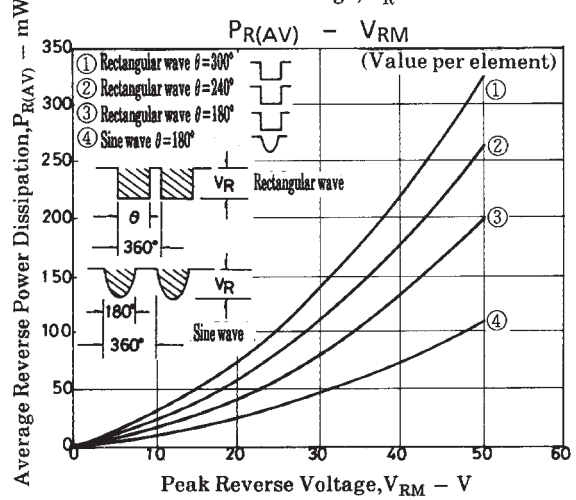
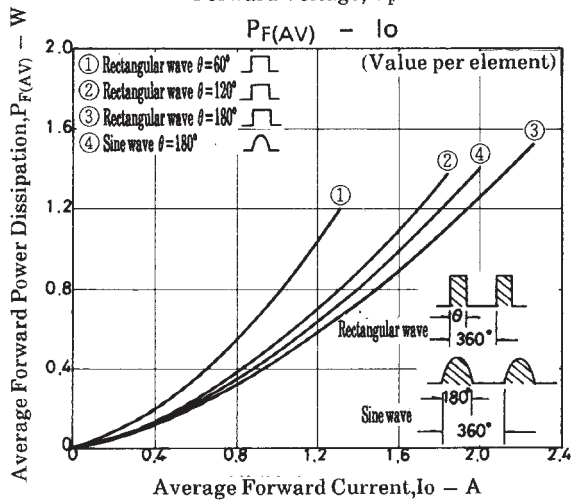
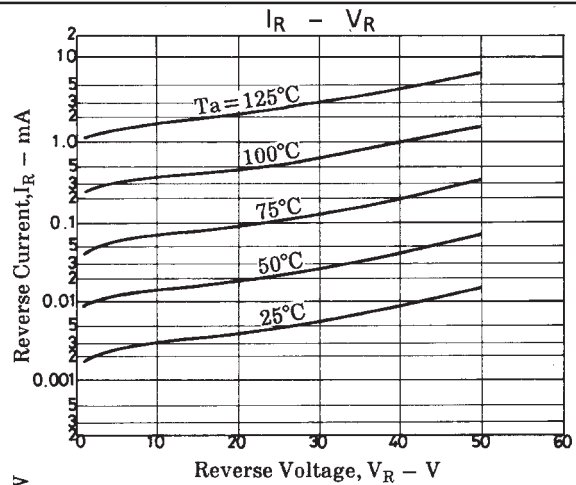
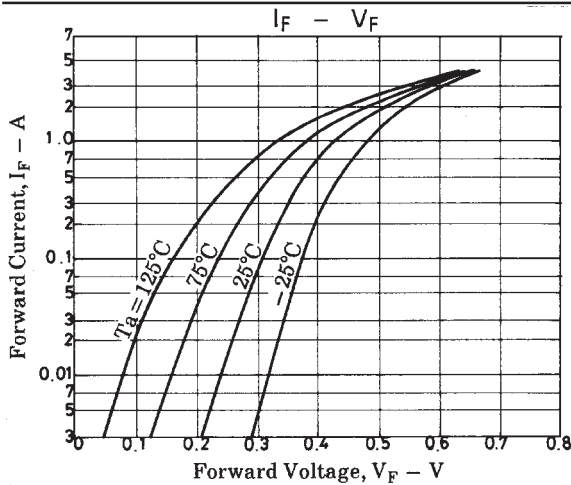
**Electrical Characteristics at  $T_a = 25^\circ\text{C}$** 

| Parameter                 | Symbol        | Conditions                                          | Ratings |     |      | Unit               |
|---------------------------|---------------|-----------------------------------------------------|---------|-----|------|--------------------|
|                           |               |                                                     | min     | typ | max  |                    |
| Reverse Voltage           | $V_R$         | $I_R=1\text{mA}$                                    | 50      |     |      | V                  |
| Forward Voltage           | $V_F$         | $I_F=2\text{A}$                                     |         |     | 0.55 | V                  |
| Reverse Current           | $I_R$         | $V_R=25\text{V}$                                    |         |     | 200  | $\mu\text{A}$      |
| Interterminal Capacitance | C             | $V_R=10\text{V}$ , $f=1\text{MHz}$                  |         | 120 |      | pF                 |
| Reverse Recovery Time     | $t_{rr}$      | $I_F=I_R=300\text{mA}$ , See specified Test Circuit |         |     | 20   | ns                 |
| Thermal Resistance        | $R_{th(j-a)}$ |                                                     |         | 75  |      | $^\circ\text{C/W}$ |

 **$t_{rr}$  Test Circuit****SANYO Electric Co.,Ltd. Semiconductor Business Headquarters**

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