

**SANYO****SB160-05R**

Schottky Barrier Diode (Twin Type · Cathode Common)

**50V, 16A Rectifier****Applications**

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

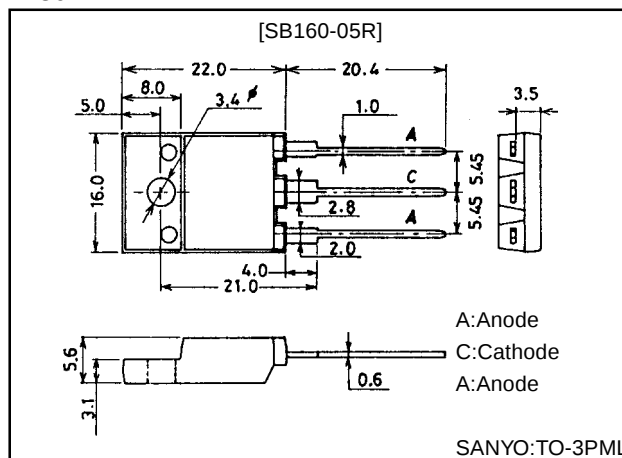
**Features**

- Low forward voltage ( $V_F$  max=0.55V).
- Fast reverse recovery time ( $t_{rr}$  max=75ns).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.
- Micaless package facilitating easy mounting.

**Package Dimensions**

unit:mm

1180

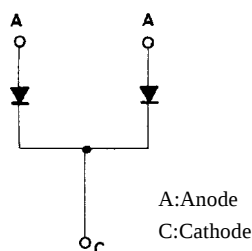
**Specifications****Absolute Maximum Ratings at  $T_a = 25^\circ\text{C}$** 

| 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                   | $I_O$     | 50Hz, resistive load, $T_c=99^\circ\text{C}$ | 16          | A                |
| Surge Forward Current                    | $I_{FSM}$ | 50Hz sine wave, 1 cycle                      | 140         | A                |
| Junction Temperature                     | $T_j$     |                                              | -55 to +125 | $^\circ\text{C}$ |
| Storage Temperature                      | $T_{stg}$ |                                              | -55 to +125 | $^\circ\text{C}$ |

**Electrical Characteristics**

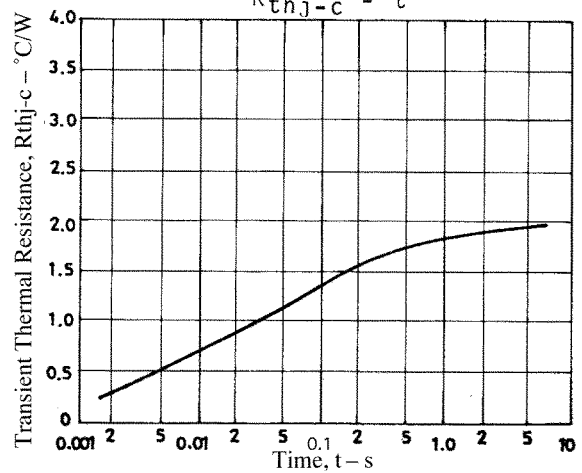
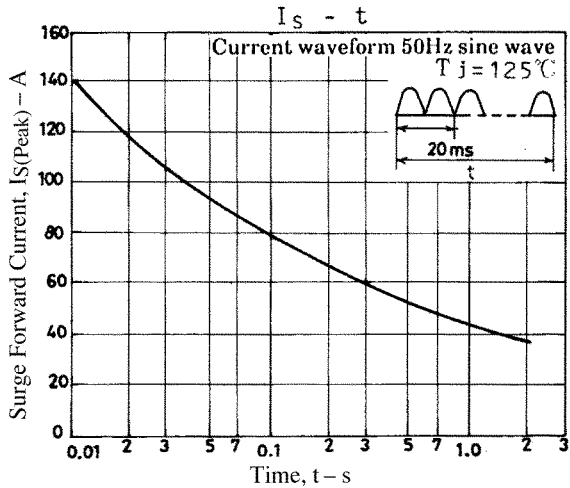
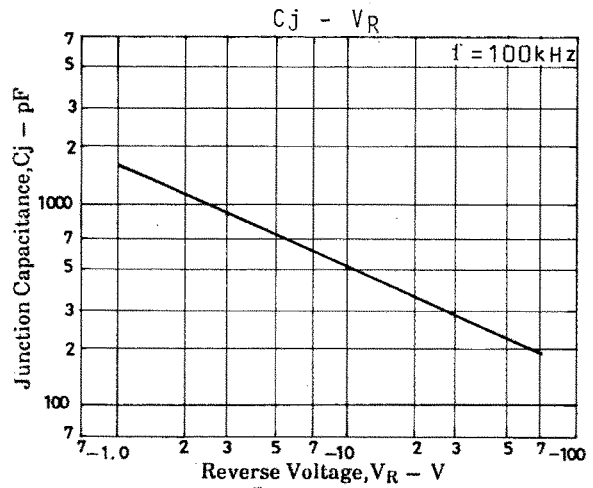
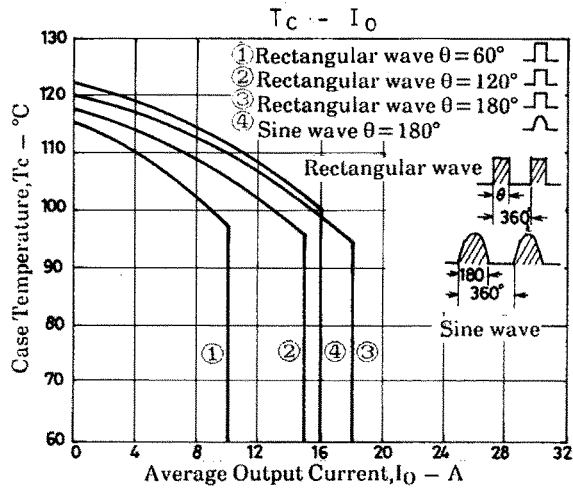
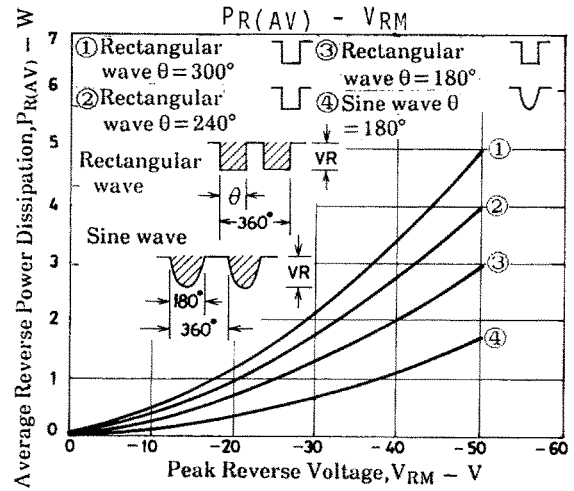
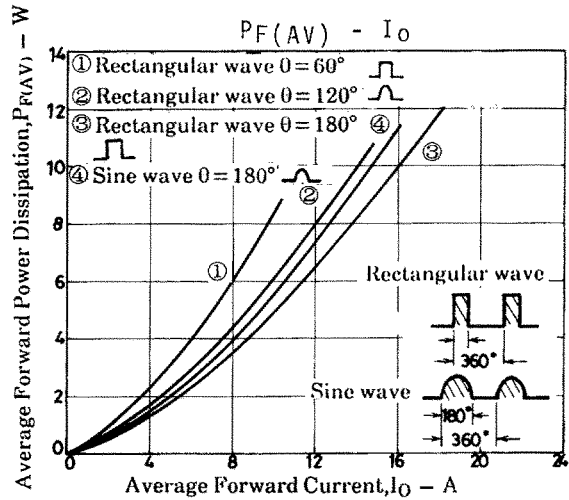
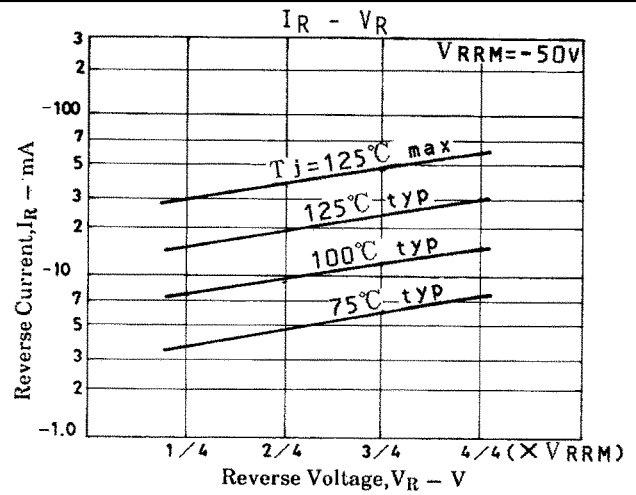
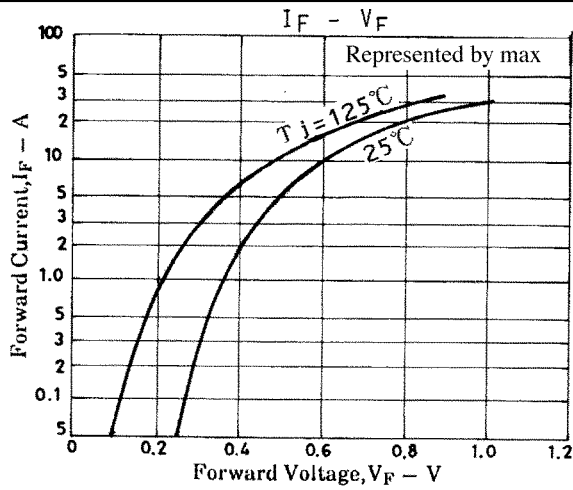
| Parameter             | Symbol      | Conditions                                                                     | Ratings |     |      | Unit                      |
|-----------------------|-------------|--------------------------------------------------------------------------------|---------|-----|------|---------------------------|
|                       |             |                                                                                | min     | typ | max  |                           |
| Reverse Voltage       | $V_R$       | $I_R=-4\text{mA}$ , $T_j=25^\circ\text{C}^*$                                   | -50     |     |      | V                         |
| Forward Voltage       | $V_F$       | $I_F=8\text{A}$ , $T_j=25^\circ\text{C}^*$                                     |         |     | 0.55 | V                         |
| Reverse Current       | $I_R$       | $V_R=-25\text{V}$ , $T_j=25^\circ\text{C}^*$                                   |         |     | -0.8 | mA                        |
| Reverse Recovery Time | $t_{rr}$    | $I_F=2\text{A}$ , $T_j=25^\circ\text{C}^*$ , $-dI_F/dt=10\text{A}/\mu\text{s}$ |         |     | 75   | ns                        |
| Thermal Resistance    | $R_{thj-c}$ | Junction-Case:Smoothed DC                                                      |         |     | 2    | $^\circ\text{C}/\text{W}$ |

Note)\*:Value per element

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