

**SB30-18**

Schottky Barrier Diode (Twin Type · Cathod Common)

**180V, 3A Rectifier****Applications**

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

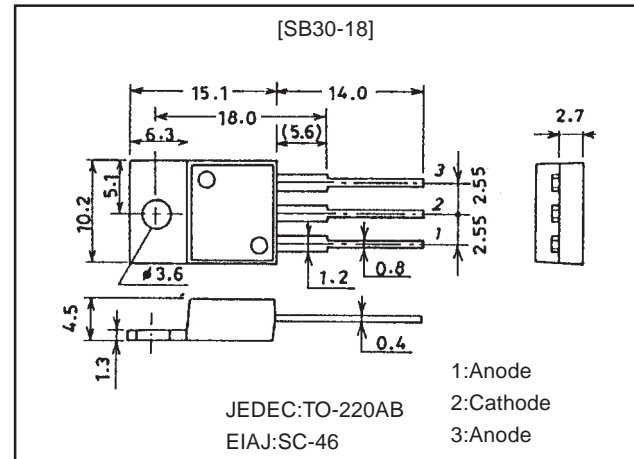
**Features**

- Low forward voltage ( $V_F$  max=0.85V).
- Fast reverse recovery time ( $t_{rr}$  max=40ns).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

**Package Dimensions**

unit:mm

1159B

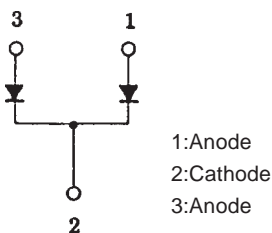
**Specifications****Absolute Maximum Ratings at  $T_a = 25^\circ\text{C}$** 

| Parameter                                | Symbol    | Conditions                                    | Ratings     | Unit             |
|--|-----------|---|-------------|------------------|
| Repetitive Peak Reverse Voltage          | $V_{RRM}$ |   | 180         | V                |
| Nonrepetitive Peak Reverse Surge Voltage | $V_{RSM}$ |   | 190         | V                |
| Average Output Current                   | $I_O$     | 50Hz, resistive load, $T_c=108^\circ\text{C}$ | 3           | A                |
| Surge Forward Current                    | $I_{FSM}$ | 50Hz sine wave, 1 cycle                       | 60          | A                |
| Junction Temperature                     | $T_j$     |   | -55 to +125 | $^\circ\text{C}$ |
| Storage Temperature                      | $T_{stg}$ |   | -55 to +125 | $^\circ\text{C}$ |

**Electrical Characteristics**

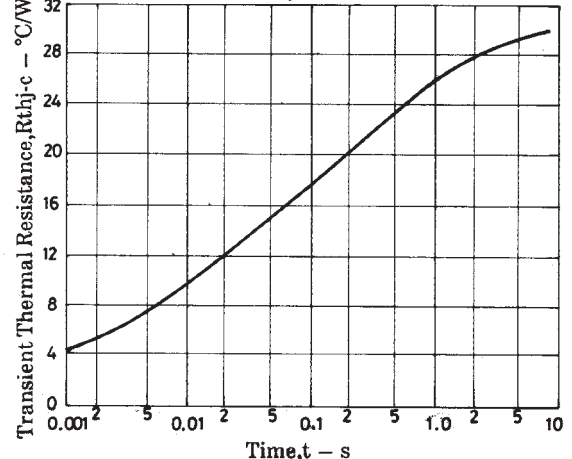
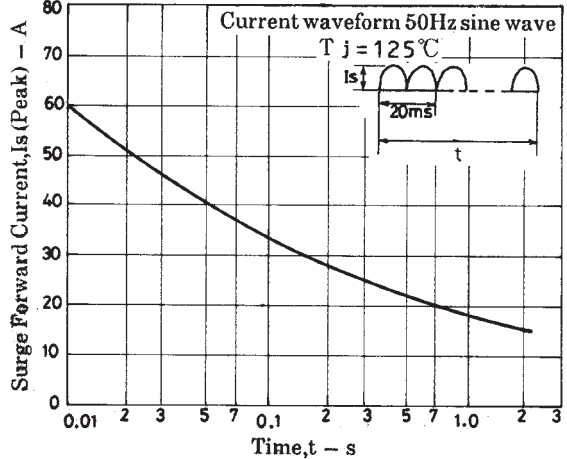
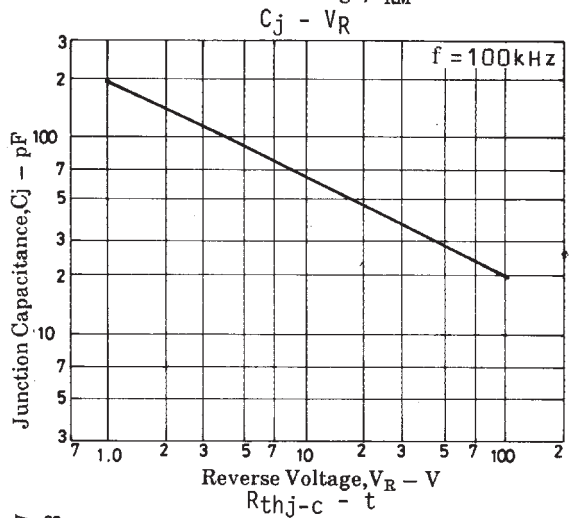
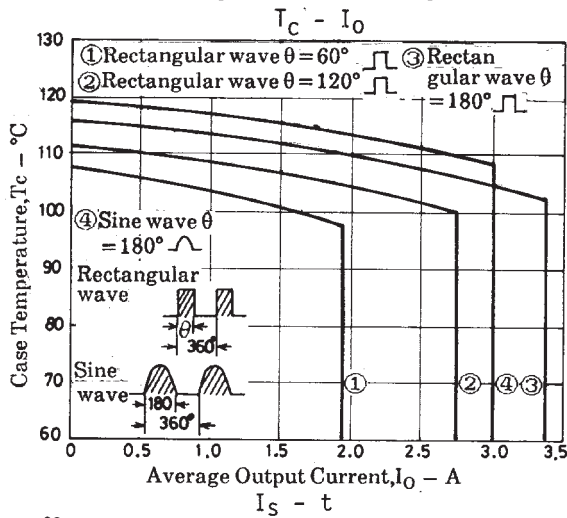
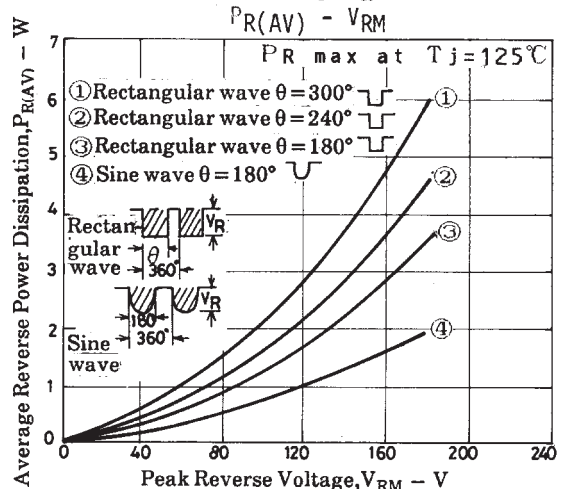
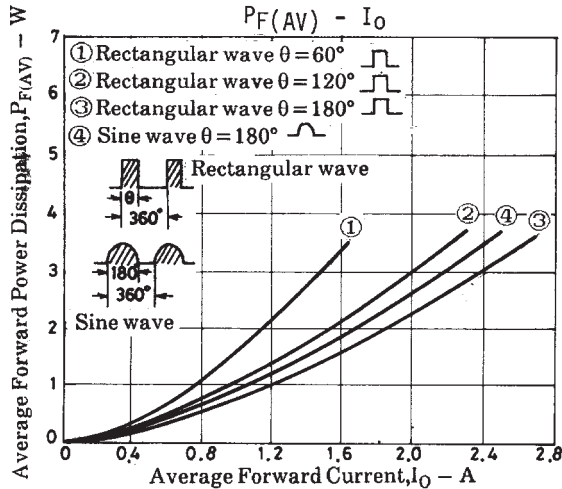
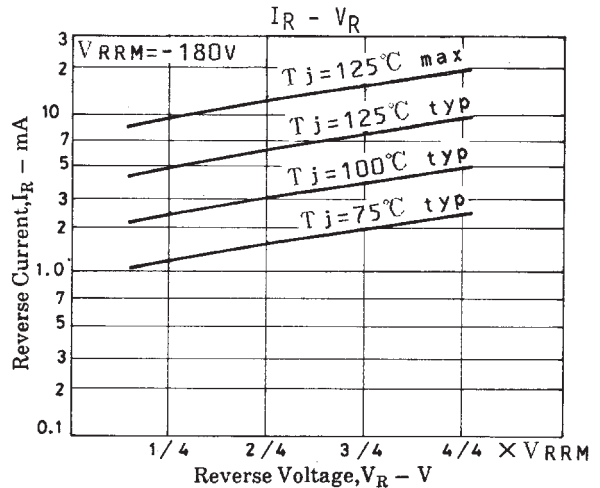
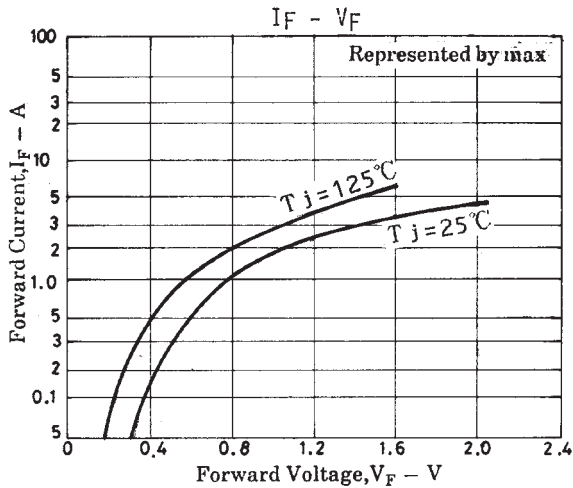
| Parameter             | Symbol      | Conditions  | Ratings |      |     | Unit                      |
|-----------------------|-------------|---|---------|------|-----|---------------------------|
|                       |             |   | min     | typ  | max |                           |
| Reverse Voltage       | $V_R$       | $I_R=1.5\text{mA}$ , $T_j=25^\circ\text{C}$ , *                                 | 180     |      |     | V                         |
| Forward Voltage       | $V_F$       | $I_F=1.2\text{A}$ , $T_j=25^\circ\text{C}$ , *                                  |         | 0.85 |     | V                         |
| Reverse Current       | $I_R$       | $V_R=90\text{V}$ , $T_j=25^\circ\text{C}$ , *                                   |         |      | 0.3 | mA                        |
| Reverse Recovery Time | $t_{rr}$    | $I_F=2\text{A}$ , $T_j=25^\circ\text{C}$ , *, $-dI_F/dt=10\text{A}/\mu\text{s}$ |         |      | 40  | ns                        |
| Thermal Resistance    | $R_{thj-c}$ | Junction-Case:Smoothed DC   |         |      | 3.0 | $^\circ\text{C}/\text{W}$ |

Note\*: Value per element

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