



SB01-15NP

Shottky Barrier Diode

150V, 100mA Rectifier

Applications

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

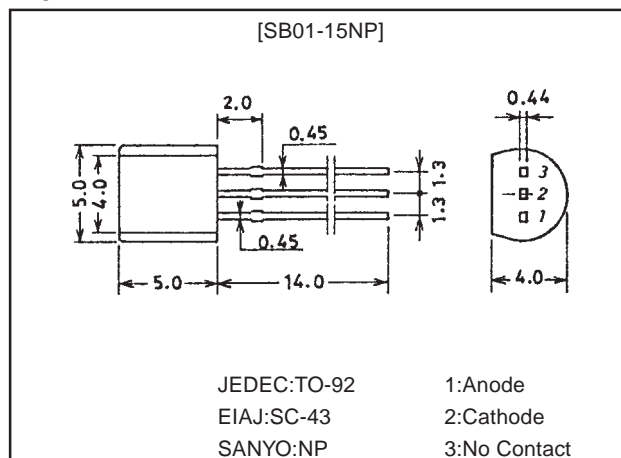
Features

- Low forward voltage (V_F max=0.75V).
- 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

1157A



Specifications

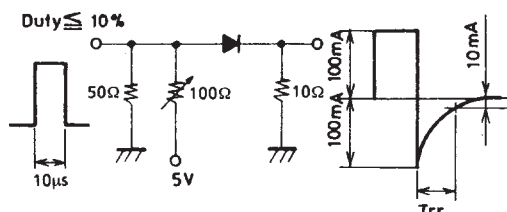
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Conditions | Ratings | Unit |
|--|-----------|--|-------------|------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | | 150 | V |
| Nonrepetitive Peak Reverse Surge Voltage | V_{RSM} | | 155 | V |
| Average Output Current | I_O | 50Hz, resistive load, $T_a=93^\circ\text{C}$ | 100 | mA |
| Surge Forward Current | I_{FSM} | 50Hz sine wave, 1cycle | 5 | A |
| Junction Temperature | T_j | | -55 to +125 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | | -55 to +125 | $^\circ\text{C}$ |

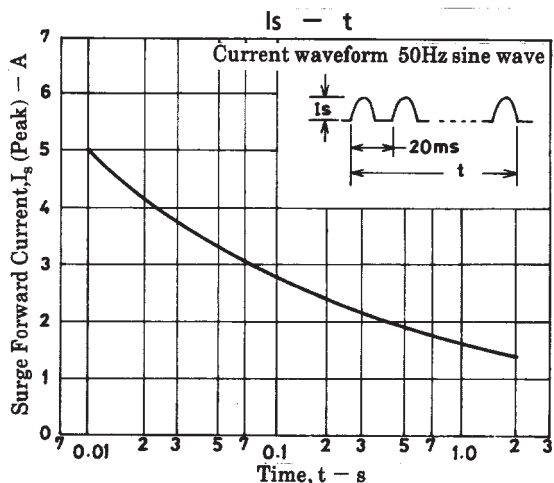
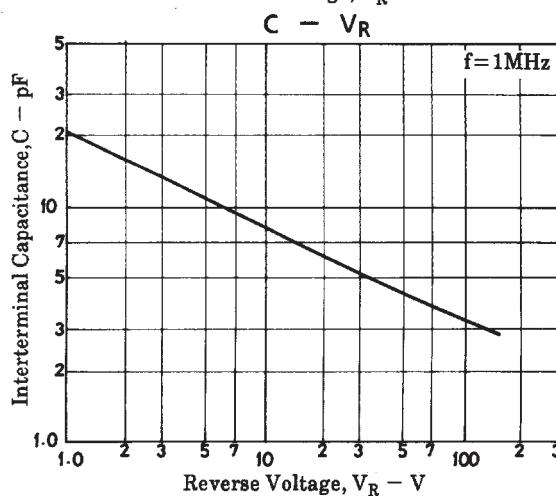
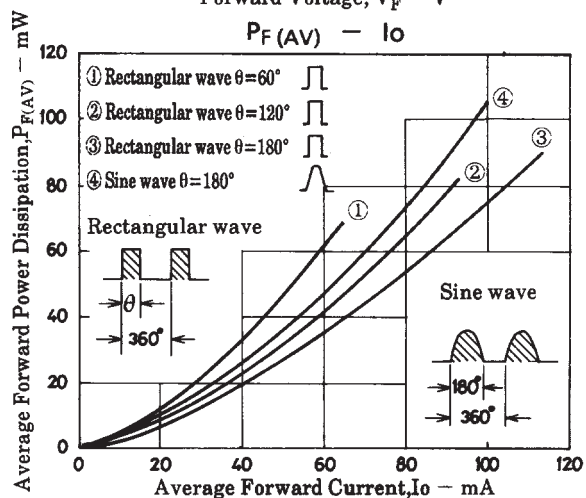
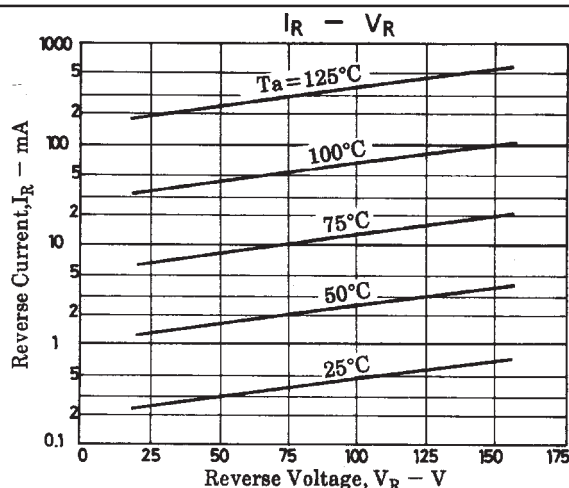
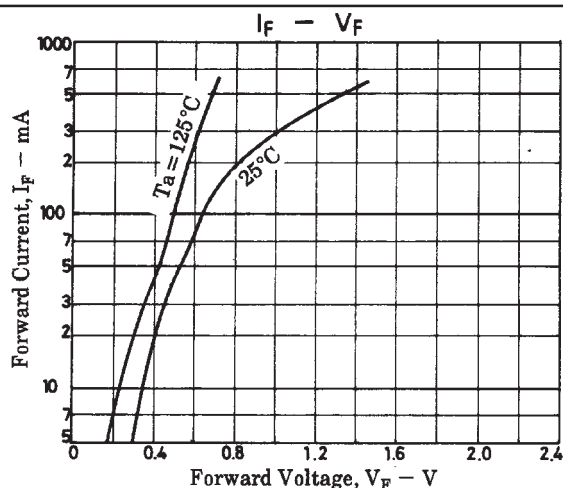
Electrical Characteristics at $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------|-------------|---|---------|-----|------|--------------------|
| | | | min | typ | max | |
| Reverse Voltage | V_R | $I_R=200\mu\text{A}$ | 150 | | | V |
| Forward Voltage | V_F | $I_F=100\text{mA}$ | | | 0.75 | V |
| Reverse Current | I_R | $V_R=75\text{V}$ | | | 50 | μA |
| Interterminal Capacitance | C | $V_R=10\text{V}$, $f=1\text{MHz}$ | | 8 | | pF |
| Reverse Recovery Time | t_{rr} | $I_F=I_R=100\text{mA}$, See specified Test Circuit | | | 10 | ns |
| Thermal Resistance | R_{thj-a} | | | 165 | | $^\circ\text{C/W}$ |

t_{rr} Test Circuit



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