

# SANYO Semiconductors DATA SHEET

# SB10-015P — Schottky Barrier Diode 15V, 1A Rectifier

# **Applications**

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

#### **Features**

- Low forward voltage (VF max=0.55V).
- Fast reverse recovery time (trr max=10ns).
- · Low switching noise.
- · Low leakage current and high reliability due to highly reliable planar structure.

#### **Specifications**

#### Absolute Maximum Ratings at Ta=25°C

| Parameter                                | Symbol | Conditions              | Ratings     | Unit |
|--|--------|-------------------------|-------------|------|
| Repetitive Peak Reverse Voltage          | VRRM   |                         | 15          | V    |
| Nonrepetitive Peak Reverse Surge Voltage | VRSM   |                         | 17          | V    |
| Average Output Current                   | lo     |                         | 1           | Α    |
| Surge Forward Current                    | IFSM   | 50Hz sine wave, 1 cycle | 8           | Α    |
| Junction Temperature                     | Tj     |                         | -55 to +125 | °C   |
| Storage Temperature                      | Tstg   |                         | -55 to +125 | °C   |

#### Electrical Characteristics at Ta=25°C

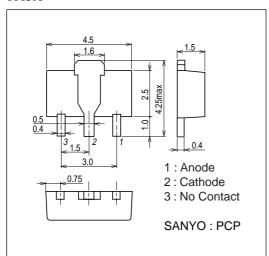
| Parameter                 | Symbol           | Conditions   | Ratings |     |      | Unit   |
|---------------------------|------------------|--|---------|-----|------|--------|
|                           |                  |  | min     | typ | max  | Unit   |
| Reverse Voltage           | ٧R               | I <sub>R</sub> =300μA                              | 15      |     |      | V      |
| Forward Voltage           | V <sub>F</sub> 1 | I <sub>F</sub> =1A                                 |         |     | 0.55 | V      |
|                           | VF2              | IF=100mA   |         |     | 0.40 | V      |
| Reverse Current           | IR               | V <sub>R</sub> =7.5V                               |         |     | 50   | μΑ     |
| Interterminal Capacitance | С                | V <sub>R</sub> =10V, f=1MHz                        |         | 30  |      | pF     |
| Reverse Recovery Time     | t <sub>rr</sub>  | IF=IR=100mA, See specified Test Circuit.           |         |     | 10   | ns     |
| Thermal Resistance        | Rthj-a 1         |  |         | 310 |      | °C/W   |
|                           | Rthj-a 2         | Mounted on 250mm <sup>2</sup> X0.8mm ceramic board |         | 120 |      | °C / W |

Marking: SI

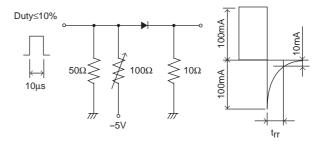
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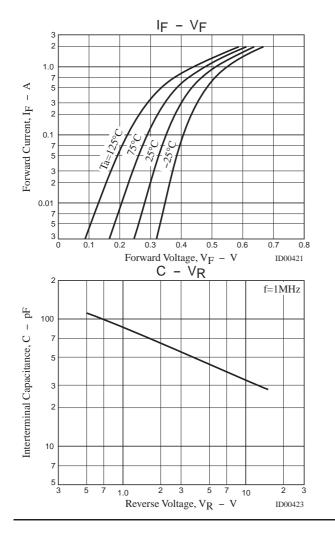
## **Package Dimensions**

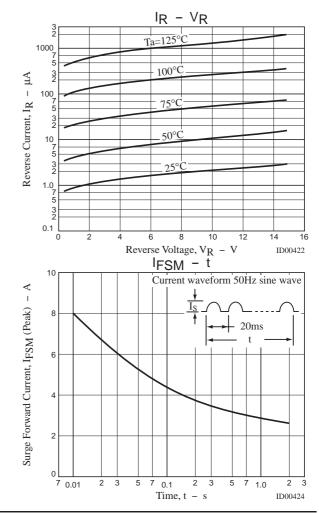
unit : mm 1163A



## trr Test Circuit







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