



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

SB07-03C — Schottky Barrier Diode 30V, 700mA 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=10ns).
- Low switching noise.
- Low leakage current and high reliability due to highly reliable planar structure.

Specifications

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

| Parameter | Symbol | Conditions | Ratings | Unit |
|--|-----------|-------------------------|-------------|------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | | 30 | V |
| Nonrepetitive Peak Reverse Surge Voltage | V_{RSM} | | 35 | V |
| Average Output Current | I_O | | 700 | mA |
| Surge Forward Current | I_{FSM} | 50Hz sine wave, 1 cycle | 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 | $I_R=300\mu\text{A}$ | 30 | | | V |
| Forward Voltage | V_F | $I_F=700\text{mA}$ | | | 0.55 | V |
| Reverse Current | I_R | $V_R=15\text{V}$ | | | 80 | μA |
| Interterminal Capacitance | C | $V_R=10\text{V}$, $f=1\text{MHz}$ | | 25 | | pF |
| Reverse Recovery Time | t_{rr} | $I_F=I_R=100\text{mA}$, See specified Test Circuit | | | 10 | ns |

Marking : J

Continued on next page.

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SB07-03C

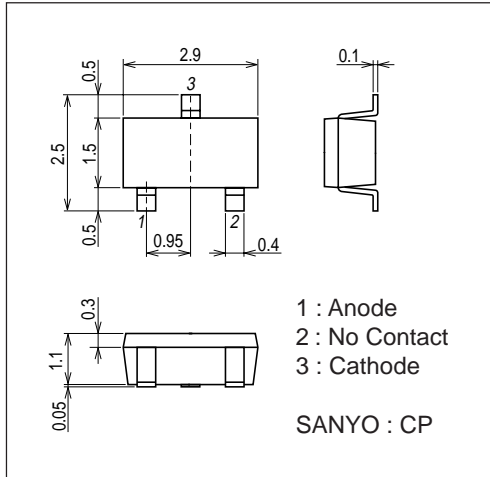
Continued from preceding page.

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--------------------|------------|---|---------|-----|-----|--------|
| | | | min | typ | max | |
| Thermal Resistance | Rthj-a (1) | Mounted on Cu-foild area of 16mm ² X0.2mm on glass epoxy board | | 420 | | °C / W |
| | Rthj-a (2) | | | 330 | | °C / W |

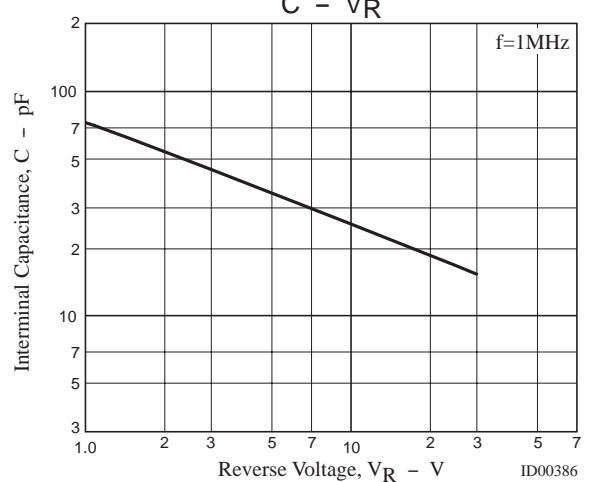
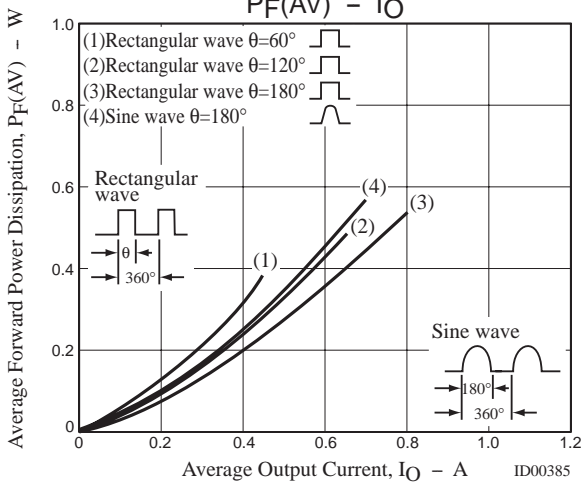
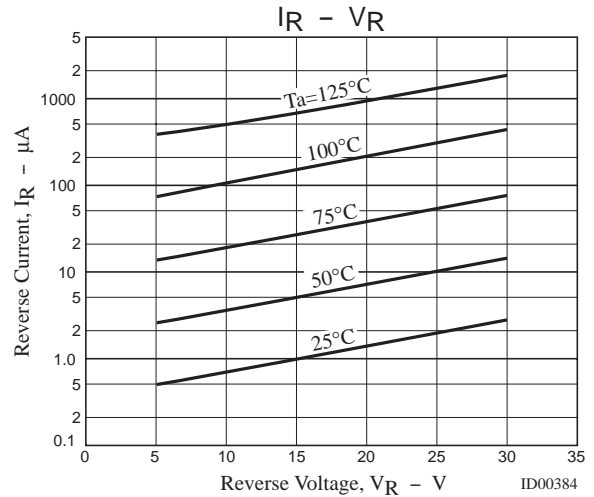
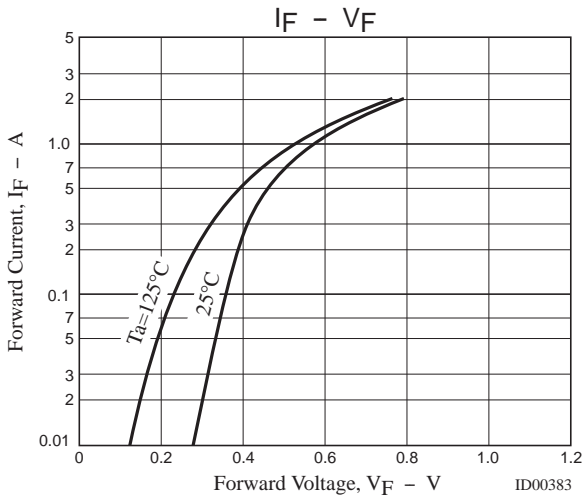
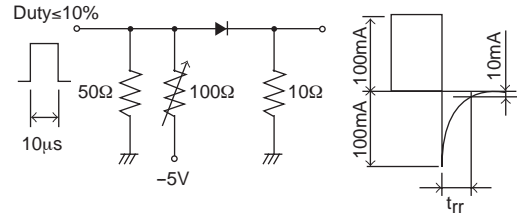
Package Dimensions

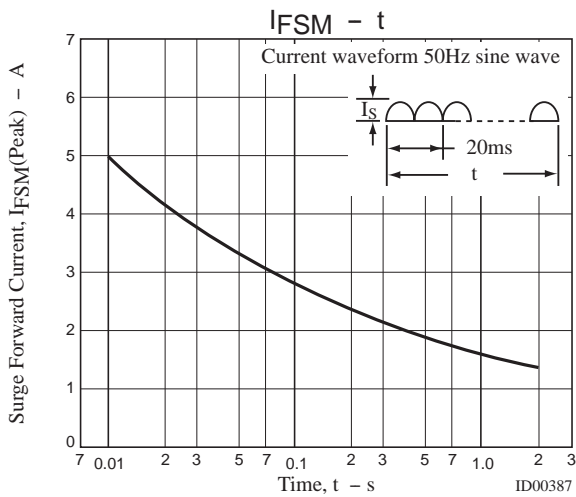
unit : mm (typ)

7013A-004



trr Test Circuit





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