

SB10-05A2, SB10-05A3

Schottky Barrier Diode

50V, 1.0A Rectifier

Applications

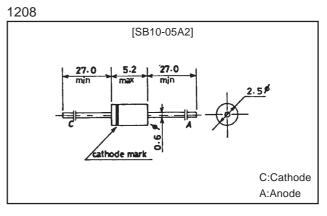
• High frequency rectification (switching regulators, converters, choppers).

Features

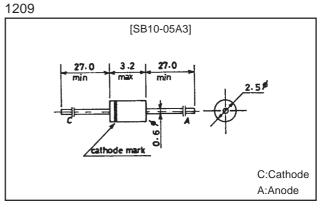
- · Low forward voltage (V_F max=0.58V).
- \cdot Fast reverse recovery time (trr max=30ns).
- · Low switching noise.
- · Average rectified current ($I_{O}=1.0A$).

Package Dimensions

unit:mm



unit:mm



Specifications

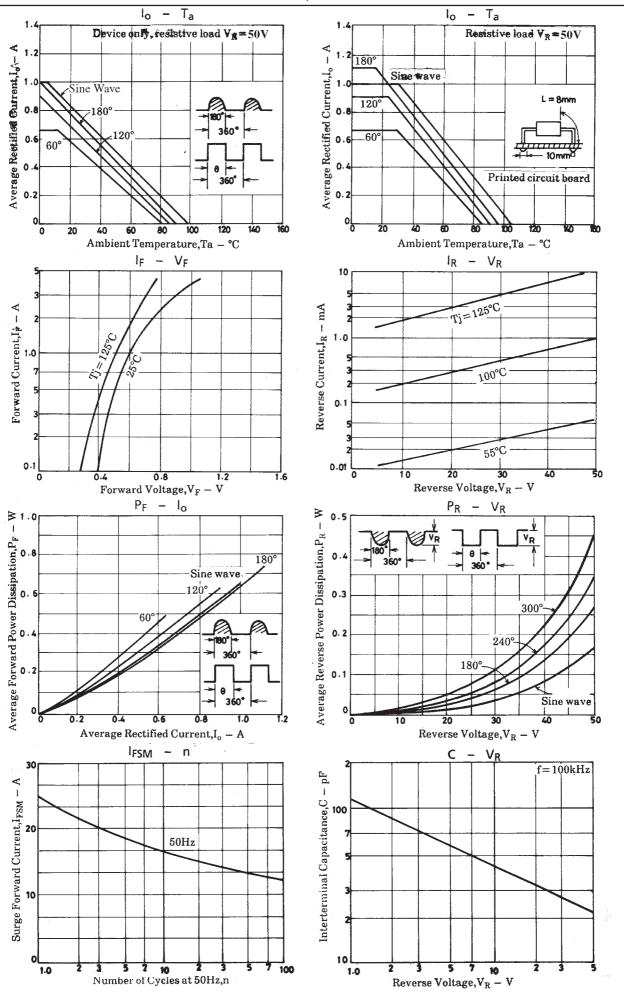
Absolute Maximum Ratings at Ta = 25°C

| Parameter | Symbol | | Conditions | Ratings | Unit |
|--|--------|-------------------------|--|-------------|------|
| Repetitive Peak Reverse Voltage | VRRM | | | 50 | V |
| Nonrepetitive Peak Reverse Surge Voltage | VRSM | | | 55 | V |
| Average Rectified Current | IO | SB10-05A2 | 50Hz, resistive load, sine wave, Ta=33°C (L=8mm, 10×10mm ² print land) | 1.0 | A |
| | | SB10-05A3 | 50Hz, resistive load, sine wave, Ta=29°C (L=3mm, 5×5mm ² print land) | 1.0 | A |
| Surge Forward Current | IFSM | 50Hz sine wave, 1 cycle | | 25 | A |
| Junction Temperature | Tj | | | 125 | °C |
| Storage Temperature | Tstg | | | -40 to +125 | °C |

Electrical Characteristics at Ta = 25°C

| Parameter | | Conditons | Ratings | | | Unit |
|---------------------------------------|----------------|--|---------|-----|------|------|
| | Symbol | | min | typ | max | Onit |
| Forward Voltage | ٧ _F | I _F =1.0A | | | 0.58 | V |
| Reverse Current | ۱ _R | V _R =50V | | | 1.0 | mA |
| Reverse Recovery Time | trr | I _{FM} =1A, –dI _F /dt=50A/µs | | | 30 | ns |
| Thermal Resistance (Junction-Ambient) | Rth(j-a) | No fin, device only | | | 140 | °C/W |

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