



SBM1045VSS

LOW VF SCHOTTKY RECTIFIER

VOLTAGE 45 Volts **CURRENT** 10 Amperes

FEATURES

- Ideal for automated placement
- Low forward voltage drop, low power losses
- High efficiency operation
- Low thermal resistance
- Lead free in comply with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case : DO-201AD Molded plastic

Terminals : Axial leads, solderable per MIL-STD-750,Method 2026

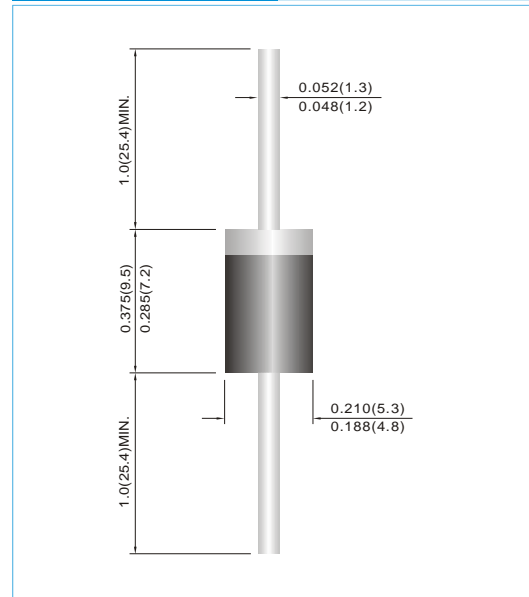
Polarity: Color band denotes cathode

Mounting Position: Any

Weight: 0.0402 ounces, 1.142 grams

DO-201AD

Unit : inch(mm)



MAXIMUM RATINGS (TA=25°C unless otherwise noted)

| PARAMETER | SYMBOL | VALUE | UNIT |
|--|----------------------------------|--------------|------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 45 | V |
| Maximum RMS Voltage | V _{RMS} | 32 | V |
| Maximum DC Blocking Voltage | V _R | 45 | V |
| Maximum Average Rectified Output Current | I _{F(AV)} | 10 | A |
| Peak Forward Surge Current : 8.3ms Single Half Sine-Wave Superimposed On Rated Load (JEDEC method) | I _{FSM} | 200 | A |
| Typical Thermal Resistance ,Junction to Ambient (Note 1) | R _{θJA} | 38 | °C/W |
| Junction to Lead (Note 2) | R _{θJL} | 10 | °C/W |
| Operating Junction Temperature Range And Storage Temperature Range | T _J ,T _{STG} | -55 to + 150 | °C |

Notes : 1. Test without heat heatsink.

2. Mounted semi-infinite heatsink.

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN. | TYP. | MAX. | UNIT |
|-------------------------------|-----------------|---------------------------------|------|------|------|------|
| Breakdown voltage | V _{BR} | I _R =0.5mA | 45 | - | - | V |
| Instantaneous forward voltage | V _F | I _F =3A TA=25°C | - | 0.34 | - | V |
| | | I _F =5A TA=25°C | - | 0.37 | - | V |
| | | I _F =10A TA=25°C | - | 0.44 | 0.47 | V |
| | | I _F =3A TA=125°C | - | 0.26 | - | V |
| Reverse current | I _R | V _R =36V TA=25°C | - | 0.04 | - | mA |
| | | V _R =45V TA=25°C | - | 0.06 | 0.3 | mA |
| | | V _R =45V TA=125°C | - | 13 | - | mA |



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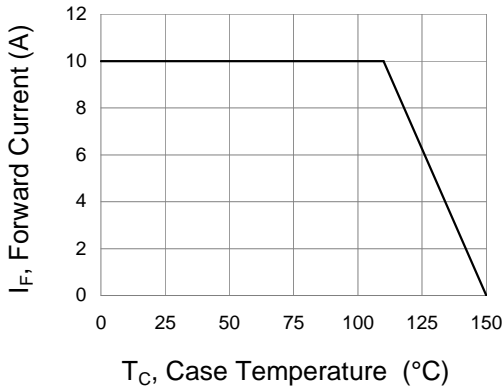


Fig.1 Forward Current Derating Curve

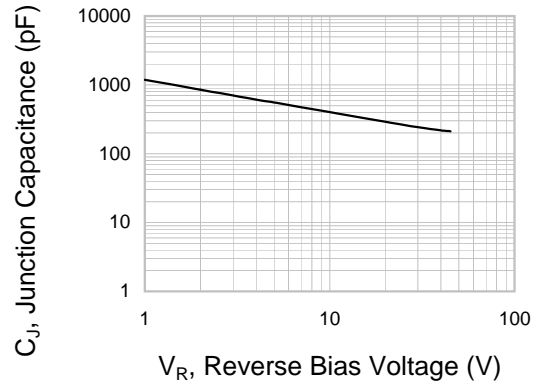


Fig.2 Typical Junction Capacitance

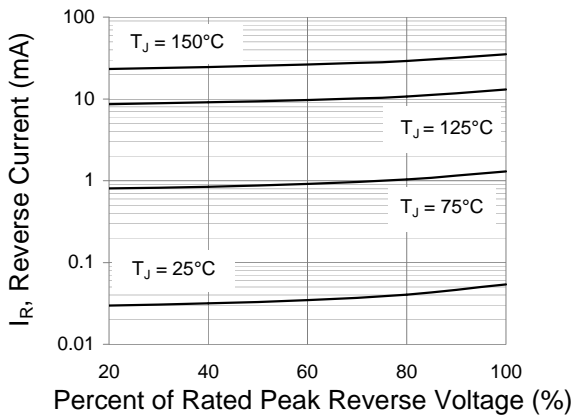


Fig.3 Typical Reverse Characteristics

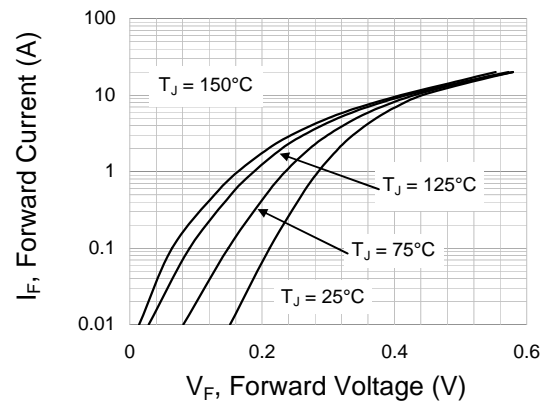


Fig.4 Typical Forward Characteristics