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

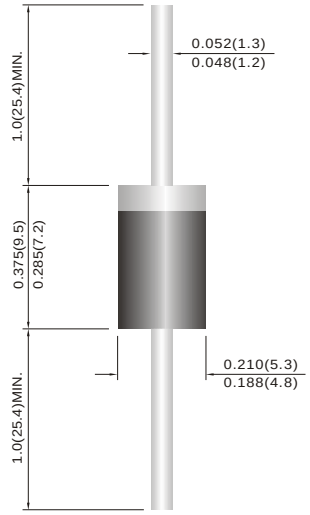
Terminals : Axial leads, solderable per MIL-STD-750,Method 2026

Polarity: Color band denotes cathode

Mounting Position: Any

Weight: 0.0402 ounces, 1.142 grams

DO-201AD Unit : inch(mm)



MAXIMUM RATINGS (T_A=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) Junction to Lead (Note 2)	$R_{\Theta JA}$ $R_{\Theta JL}$	38 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 (T_A=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, T_A=25°C	-	0.34	-	V
		I_F=5A, T_A=25°C	-	0.37	-	
		I_F=10A, T_A=25°C	-	0.44	0.47	
		I_F=3A, T_A=125°C	-	0.26	-	V
		I_F=5A, T_A=125°C	-	0.32	-	
		I_F=10A, T_A=125°C	-	0.42	-	
Reverse current	I_R	V_R=36V, T_A=25°C	-	0.04	-	mA
		V_R=45V, T_A=25°C	-	0.06	0.3	mA
		V_R=45V, T_A=125°C	-	13	-	mA

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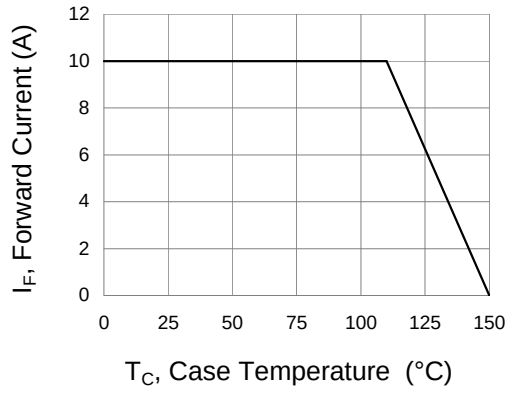

Fig.1 Forward Current Derating Curve

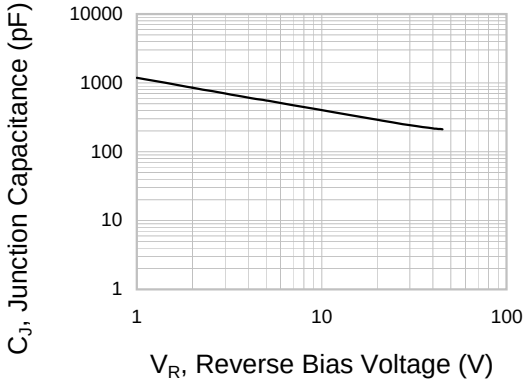

Fig.2 Typical Junction Capacitance

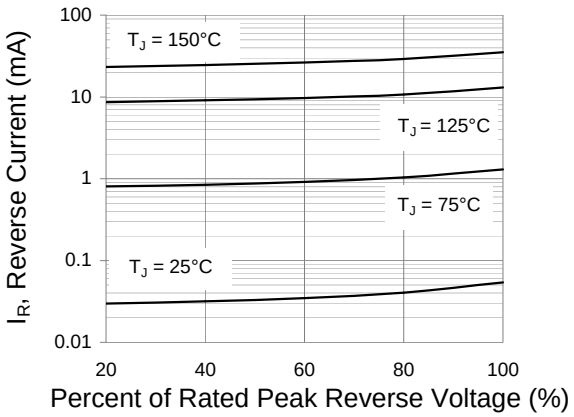

Fig.3 Typical Reverse Characteristics

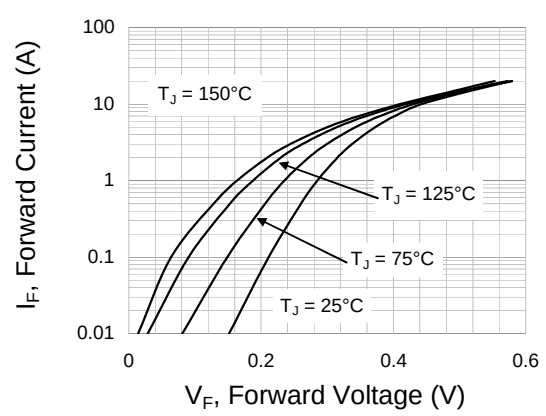

Fig.4 Typical Forward Characteristics