SBM2045VDC

UlTRA LOW VF SCHOTTKY RECTIFIER

VOLTAGE	45 Volts	CURRENT	20 Amperes

FEATURES

- Ultra Low forward voltage drop, low power losses
- High efficiency operation
- Lead free in comply with EU RoHS 2011/65/EU directives

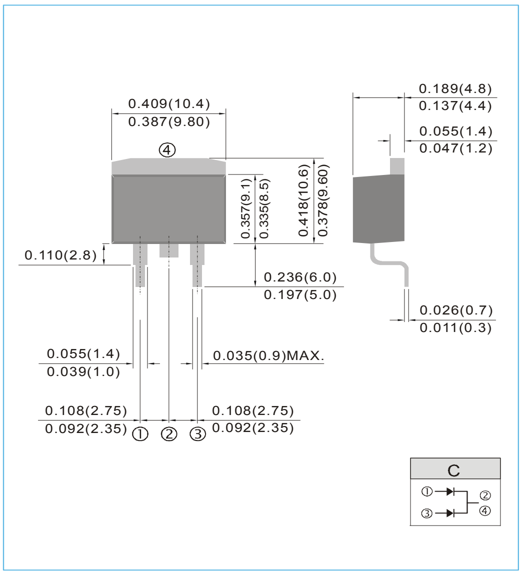
MECHANICAL DATA

Case : TO-263/D^{2}PAK, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Weight: 0.0514 ounces, 1.46 grams.

TO-263 / D^{2}PAK Unit : inch(mm)



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

PARAMETER		SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	45	V
Maximum average forward rectified current	per diode per device	$I_{F(AV)}$	20 10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	per diode	I_{FSM}	280	A
Typical junction capacitance (V_R=4V, f=1MHz)		C_J	860	pF
Typical thermal resistance per diode	(Note 1)	$R_{\Theta JC}$	3.5	°C/W
Operating junction temperature range		T_J	-55 to + 150	°C
Storage temperature range		T_{STG}	-55 to + 150	°C

Note : 1. Mounted on infinite heatsink.

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

PARAMETER	SYMBOL	TEST CONDITIONS		MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	V_{BR}	I_R=0.5mA		45	-	-	V
Instantaneous forward voltage per diode	V_F	I_F=1A I_F=5A I_F=10A	T_J=25°C	- - -	0.28 0.36 0.41	- - 0.45	V
		I_F=1A I_F=5A I_F=10A	T_J=125°C	- - -	0.18 0.28 0.36	- - -	V
Reverse current per diode	I_R	V_R=36V		-	100	-	µA
		V_R=45V	T_J=25°C T_J=125°C	- -	- 35	320 -	µA mA

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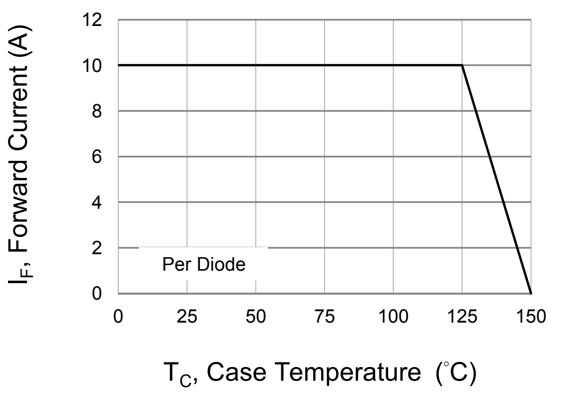

Fig.1 Forward Current Derating Curve

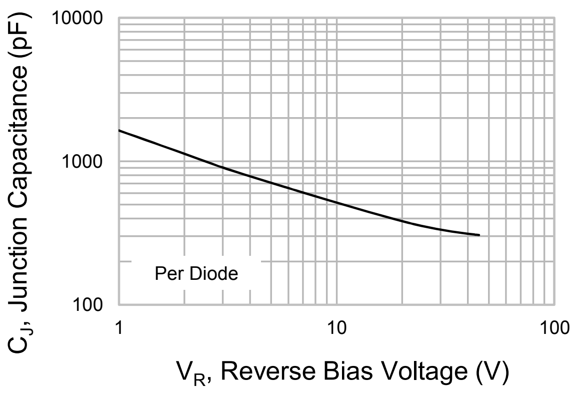

Fig.2 Typical Junction Capacitance

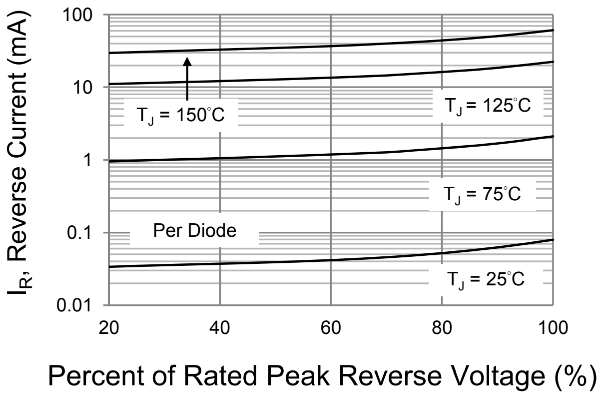

Fig.3 Typical Reverse Characteristics

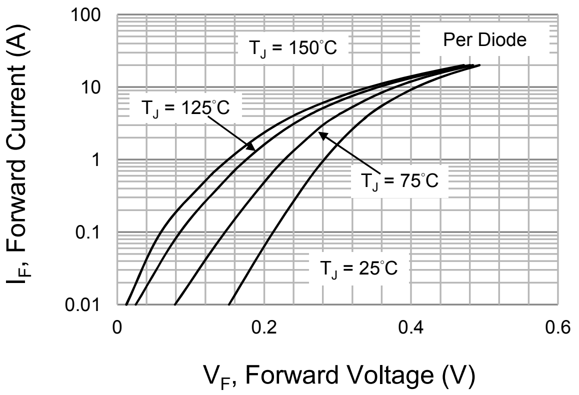

Fig.4 Typical Forward Characteristics