SBM3045VDC

ULTRA LOW VF SCHOTTKY RECTIFIER

VOLTAGE 45 Volt **CURRENT** 30 Ampere

FEATURES

- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

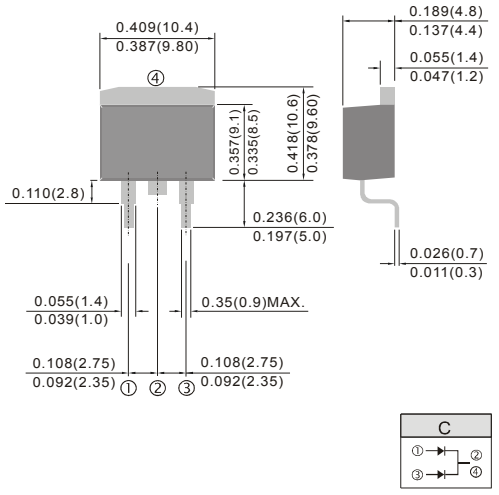
Case : D²PAK Molded Plastic

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

Polarity : As marked

Weight : 0.049 ounces, 1.38 grams.

TO-263 / D²PAK 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 device per diode	$I_{F(AV)}$	30 15	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	per diode	I_{FSM}	300	A
Typical junction capacitance (V_R=4V, f=1MHz)		C_J	1100	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=15A	T_J=25°C	- - -	0.28 0.35 0.44	- - 0.48	V
		I_F=1A I_F=5A I_F=15A	T_J=125°C	- - -	0.17 0.27 0.4	- - -	V
Reverse current per diode	I_R	V_R=36V	T_J=25°C T_J=125°C	- -	86 20	- -	μA mA
		V_R=45V	T_J=25°C T_J=125°C	- -	- 28	320 -	μA mA

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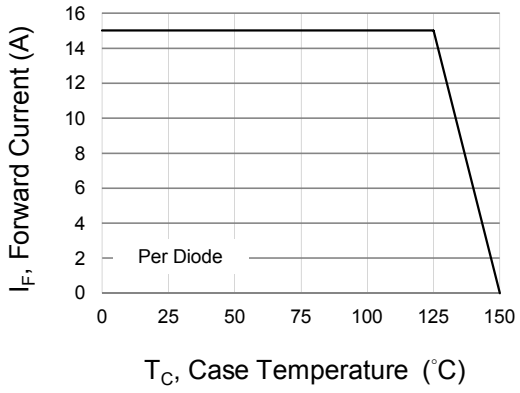

Fig.1 Forward Current Derating Curve

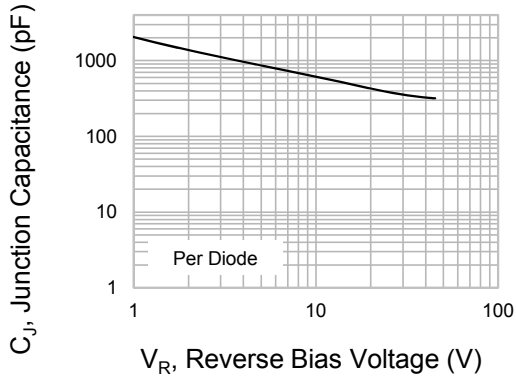

Fig.2 Typical Junction Capacitance

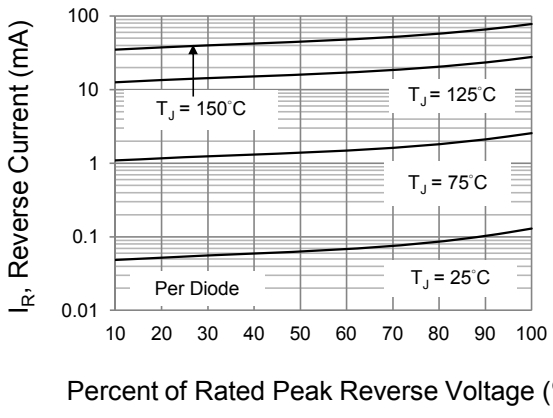

Fig.3 Typical Reverse Characteristics

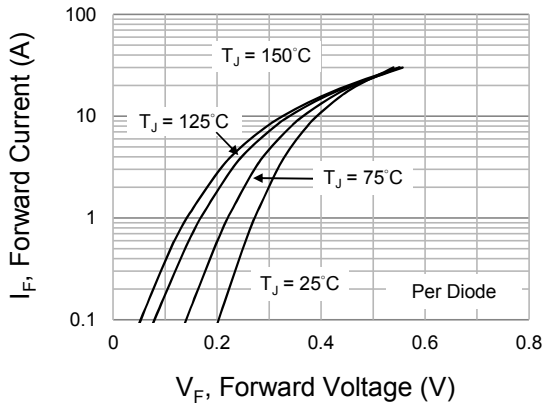

Fig.4 Typical Forward Characteristics

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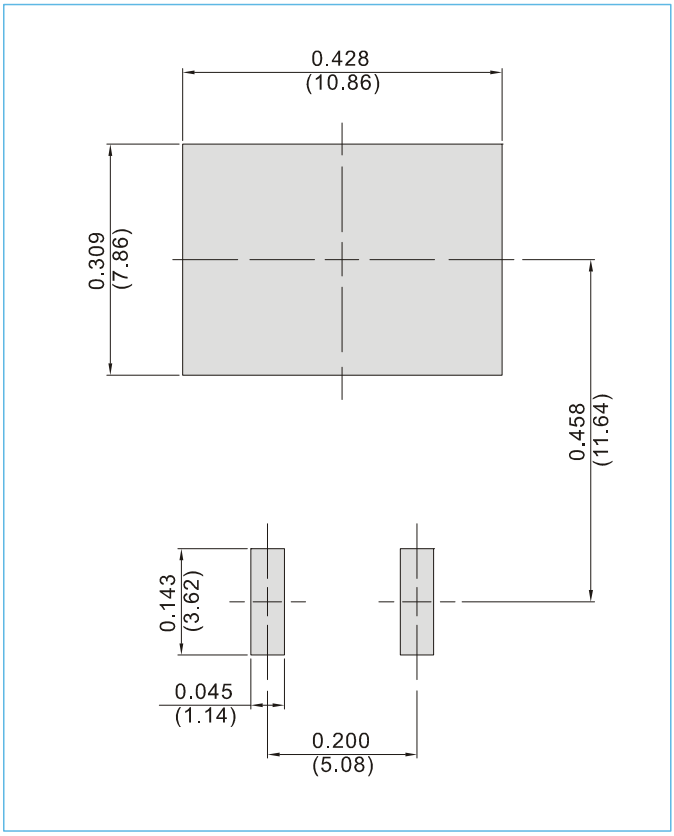
MOUNTING PAD LAYOUT

TO-263 / D²PAK Unit : inch(mm)



ORDER INFORMATION

- Packing information

  T/R - 0.8K per 13" plastic Reel

SBM3045VDC

Part No_packing code_Version

SBM3045VDC_R2_00001

For example :

RB500V-40_R2_00001

- Part No.
- Packing type means T/R
- Packing size code means 13"
- Version code means HF
- Serial number

Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			

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