SBM3045VDC

UITRA LOW VF SCHOTTKY RECTIFIER

VOLTAGE 45 Volts **CURRENT** 30 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

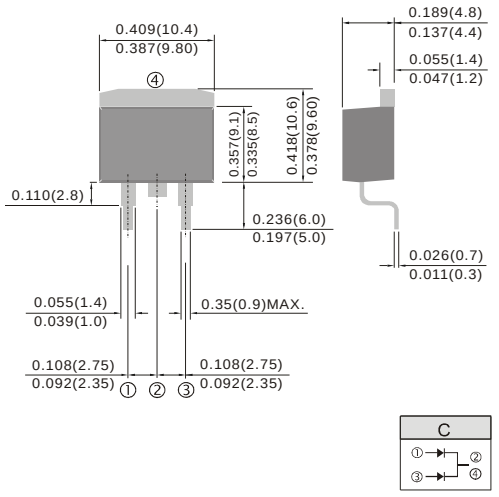
Case : D²PAK Molded Plastic

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

Polarity : As marked

Weight: 0.0514 ounces, 1.46 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 diode per device	$I_{F(AV)}$	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

SBM3045VDC

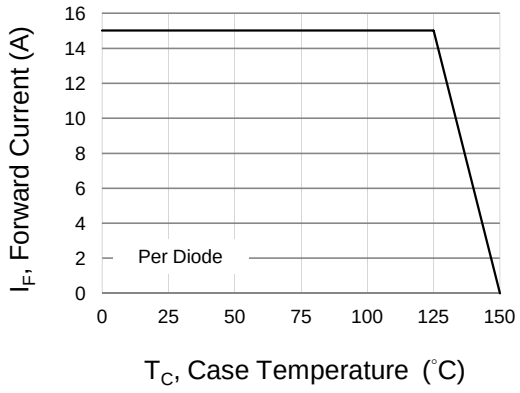


Fig.1 Forward Current Derating Curve

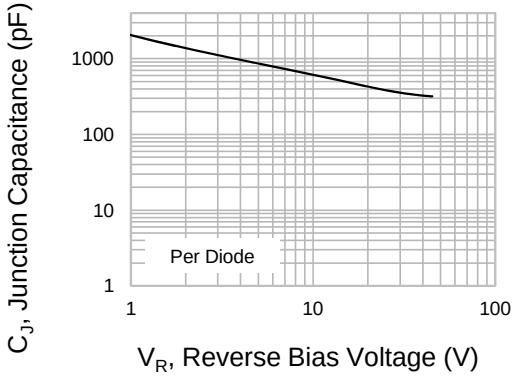


Fig.2 Typical Junction Capacitance

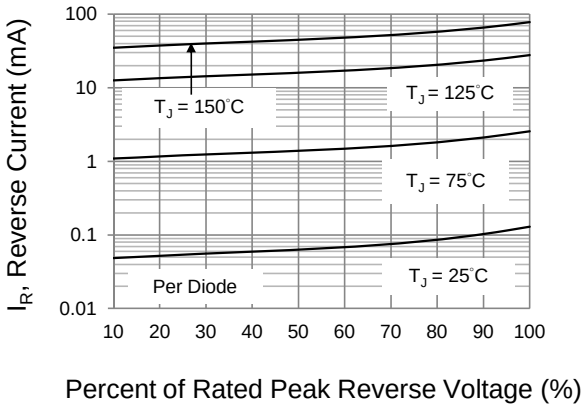


Fig.3 Typical Reverse Characteristics

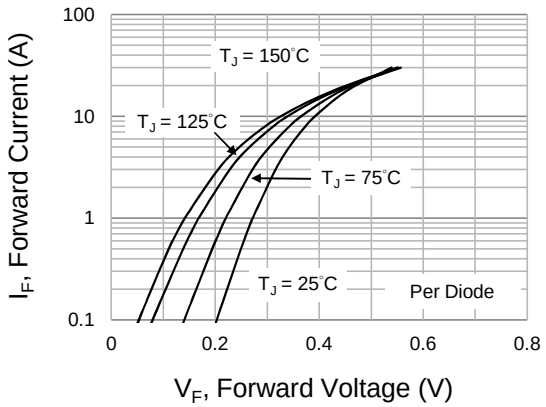
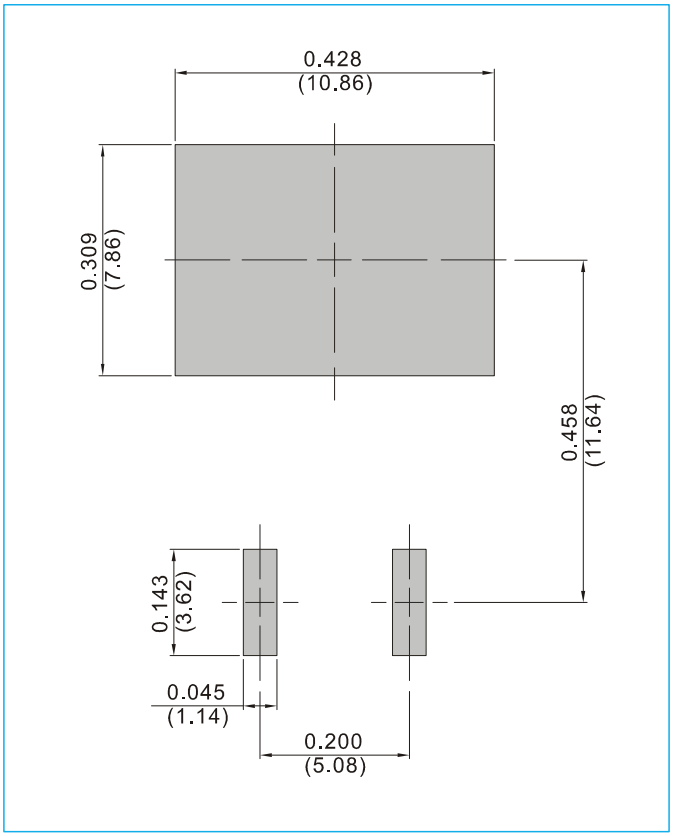


Fig.4 Typical Forward Characteristics

SBM3045VDC

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
SBM3045VDC_R2_10001

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			

SBM3045VDC

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.