



SBM2045VDC

ULTRA LOW VF SCHOTTKY RECTIFIER

VOLTAGE 45 Volts **CURRENT** 20 Amperes

TO-263 / D²PAK Unit : inch(mm)

FEATURES

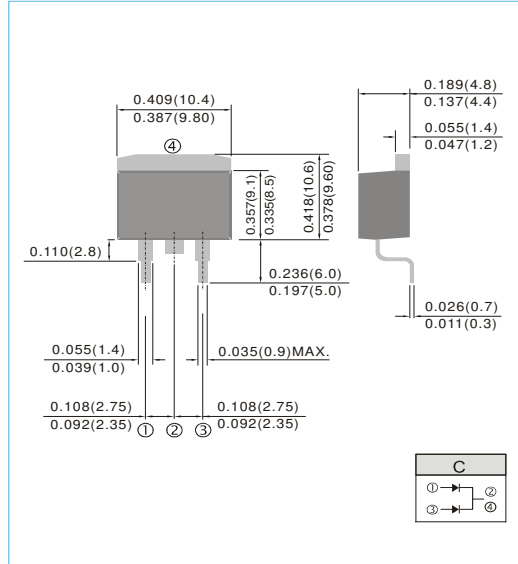
- Ultra Low forward voltage drop, low power losses
- High efficiency operation
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

Case : TO-263/D²PAK, Plastic

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

Weight: 0.0514 ounces, 1.46 grams.



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	I _{F(AV)}	20 10	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	280	A
Typical junction capacitance (V _R =4V, f=1MHz)	C _J	860	pF
Typical thermal resistance per diode (Note 1)	R _{θJC}	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	-	0.28	-	V
		I _F =5A	-	0.36	-	
		I _F =10A	-	0.41	0.45	
		T _J =25°C	-	-	-	V
I _F =1A	-	0.18	-			
I _F =5A	-	0.28	-			
Reverse current per diode	I _R	V _R =36V	-	100	-	μA
		V _R =45V	-	-	320	μA
		T _J =25°C	-	35	-	mA
		T _J =125°C	-	-	-	



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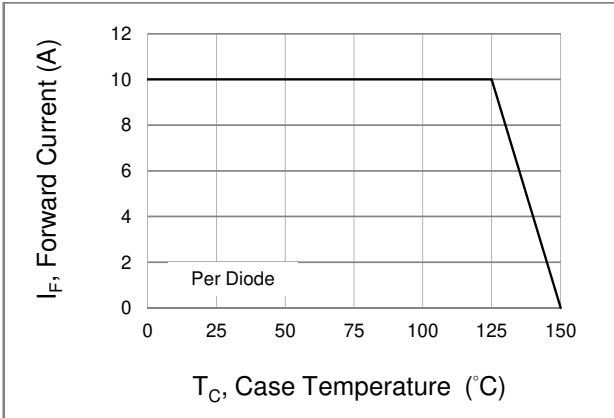


Fig.1 Forward Current Derating Curve

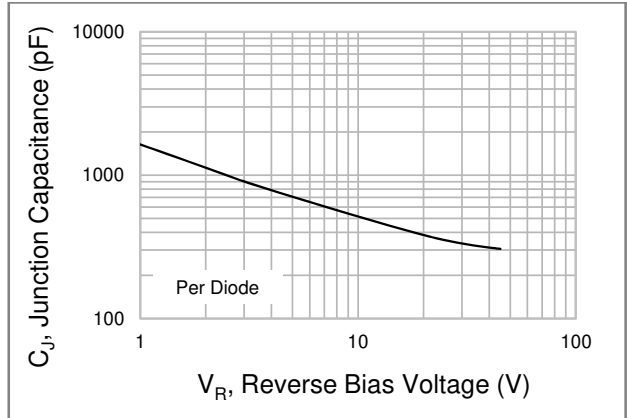


Fig.2 Typical Junction Capacitance

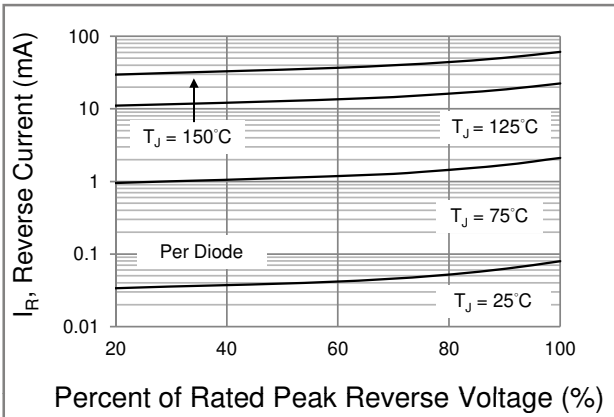


Fig.3 Typical Reverse Characteristics

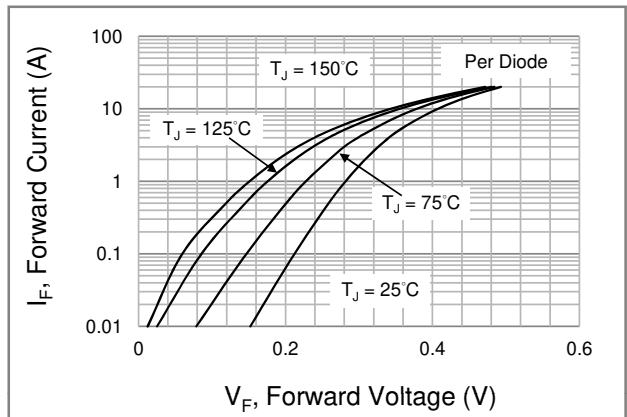
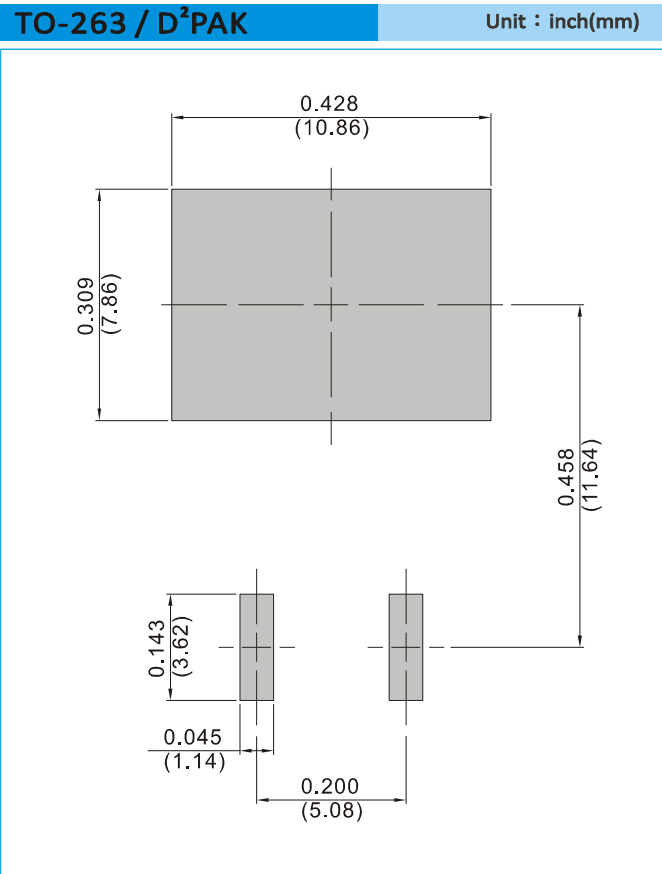


Fig.4 Typical Forward Characteristics



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 0.8K per 13" plastic Reel



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Part No_packing code_Version

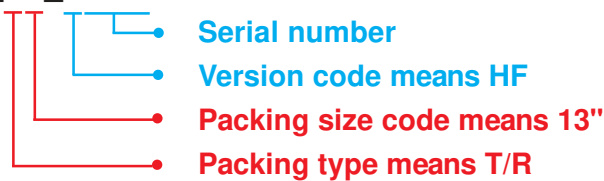
SBM2045VDC_R2_00001

SBM2045VDC_R2_10001

For example :

RB500V-40 **R2** **00001**

Part No.



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th 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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