



# SBM3045VCT

## ULTRA 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

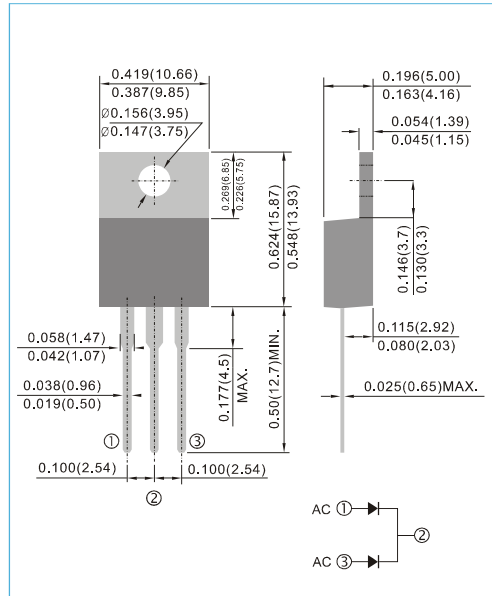
### MECHANICAL DATA

Case : TO-220AB, Plastic

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

Weight: 0.065 ounces, 1.859 grams.

**TO-220AB** Unit : inch(mm)



### MAXIMUM RATINGS( $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	45	V
Maximum average forward rectified current	$I_{F(AV)}$	30 15	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	300	A
Typical junction capacitance ( $V_R=4V$ , $f=1\text{MHz}$ )	$C_J$	1100	pF
Typical thermal resistance per diode (Note 1)	$R_{\theta JC}$	2	$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55 to + 150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to + 150	$^\circ\text{C}$

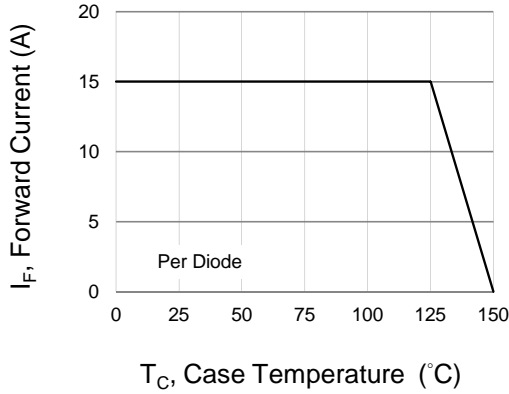
Note : 1. Mounted on infinite heatsink.

### ELECTRICAL CHARACTERISTICS( $T_A=25^\circ\text{C}$ unless otherwise noted)

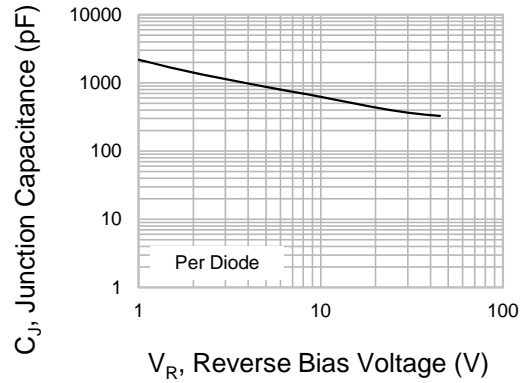
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	$V_{BR}$	$I_R=0.5\text{mA}$	45	-	-	V
Instantaneous forward voltage per diode	$V_F$	$I_F=1\text{A}$	-	0.28	-	V
		$I_F=5\text{A}$	-	0.35	-	V
		$I_F=15\text{A}$	-	0.44	0.48	V
		$I_F=1\text{A}$	-	0.17	-	V
Reverse current per diode	$I_R$	$V_R=36\text{V}$	-	86	-	$\mu\text{A}$
		$V_R=36\text{V}$	-	20	-	mA
		$V_R=45\text{V}$	-	-	320	$\mu\text{A}$
		$V_R=45\text{V}$	-	28	-	mA



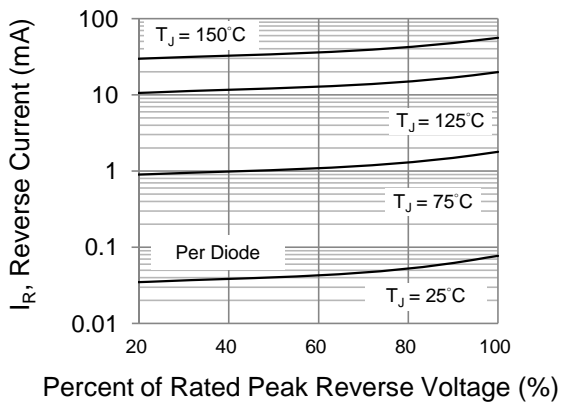
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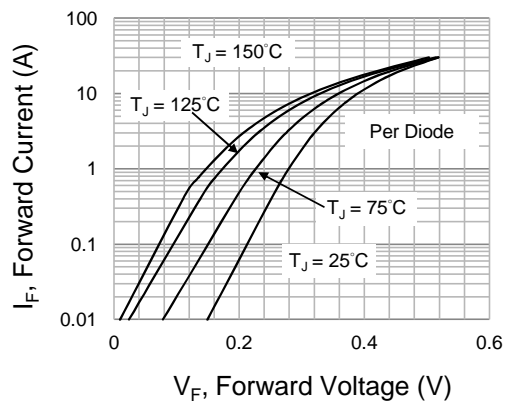
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



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## Part No\_packing code\_Version

SBM3045VCT\_T0\_00001

SBM3045VCT\_T0\_10001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> 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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