



# SBM2060VDC

## ULTRA LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 60 Volt **CURRENT** 20 Ampere

**TO-263 / D<sup>2</sup>PAK**

Unit : inch(mm)

### FEATURES

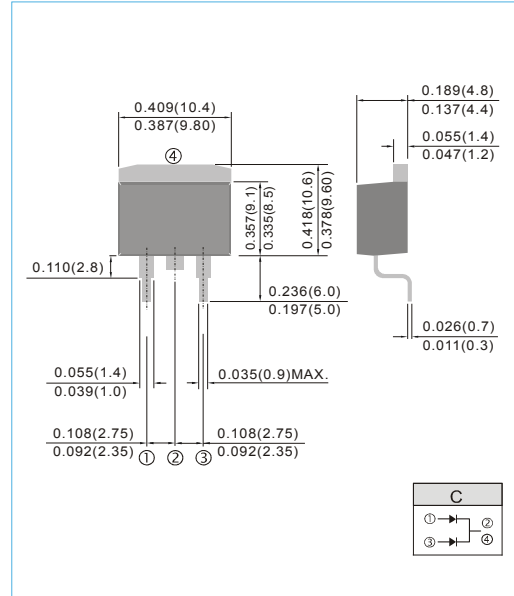
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

Case : TO-263/D<sup>2</sup>PAK, Plastic

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

Weight: 0.049 ounces, 1.38 grams.



### MAXIMUM RATINGS(T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	60	V
Maximum rms voltage	V <sub>RMS</sub>	42	V
Maximum dc blocking voltage	V <sub>R</sub>	60	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	20 10	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	150	A
Typical junction capacitance (V <sub>R</sub> =4V, f=1MHz)	C <sub>J</sub>	480	pF
Typical thermal resistance per diode (Note 1)	R <sub>θJC</sub>	3.5	°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to + 150	°C
Storage temperature range	T <sub>STG</sub>	-55 to + 150	°C

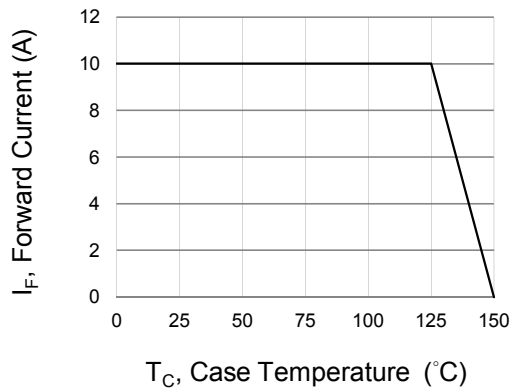
Note : 1. Mounted on infinite heatsink.



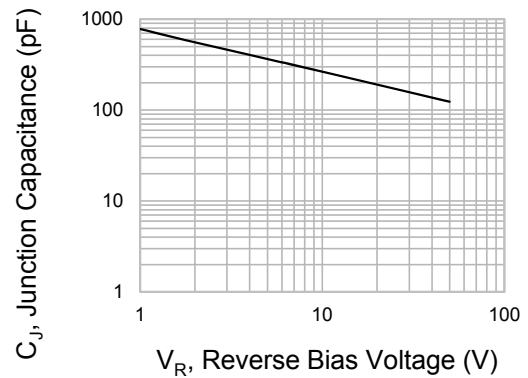
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## ELECTRICAL CHARACTERISTICS( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

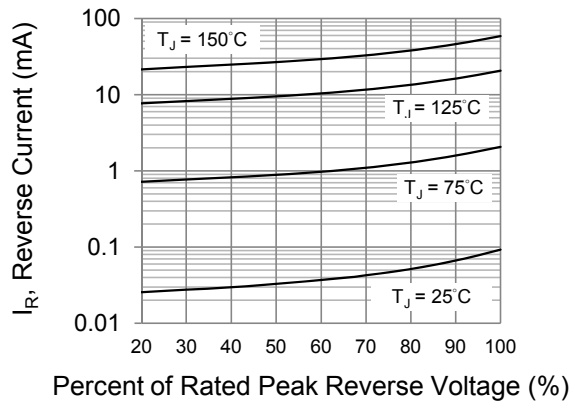
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	$V_{BR}$	$I_R=0.5\text{mA}$	60	-	-	V
Instantaneous forward voltage per diode	$V_F$	$I_F=3\text{A}$	-	0.37	-	V
		$I_F=5\text{A}$	-	0.41	-	
		$I_F=10\text{A}$	-	0.51	0.57	
		$I_F=3\text{A}$	-	0.31	-	V
		$I_F=5\text{A}$	-	0.38	-	
		$I_F=10\text{A}$	-	-	-	
Reverse current per diode	$I_R$	$V_R=42\text{V}$	-	45	-	$\mu\text{A}$
		$V_R=60\text{V}$	-	95	220	$\mu\text{A}$
		$T_J=25^{\circ}\text{C}$	-	20	-	$\text{mA}$
		$T_J=125^{\circ}\text{C}$	-	-	-	



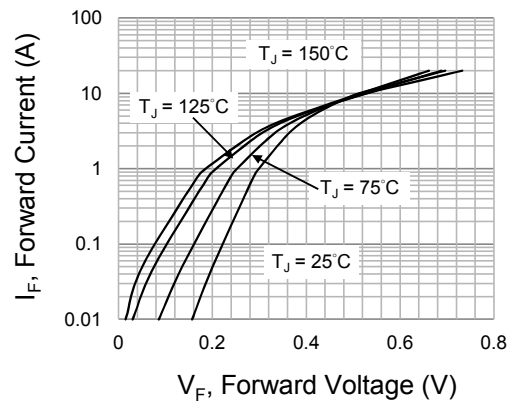
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**

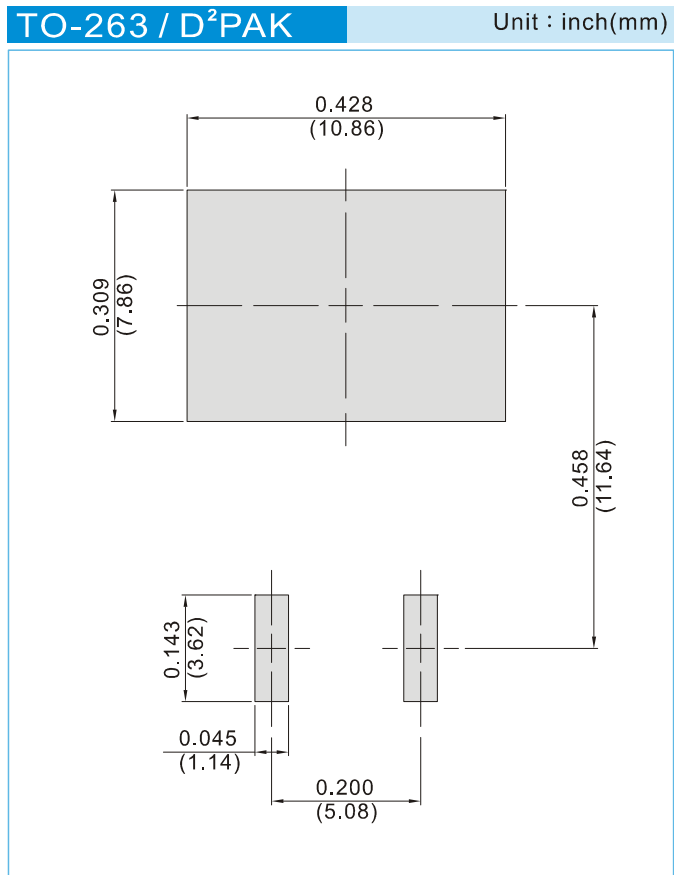


**Fig.4 Typical Forward Characteristics**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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



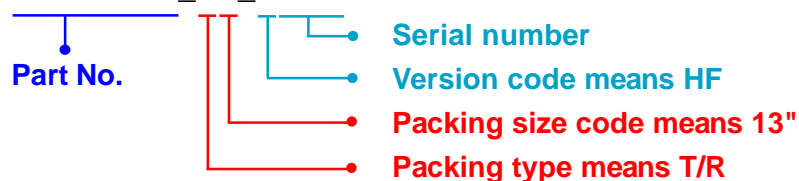
# SBM2060VDC

**Part No\_packing code\_Version**

SBM2060VDC\_R2\_00001

**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)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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