



# SBM545LSS

## ULTRA LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 45 Volt **CURRENT** 5 Ampere

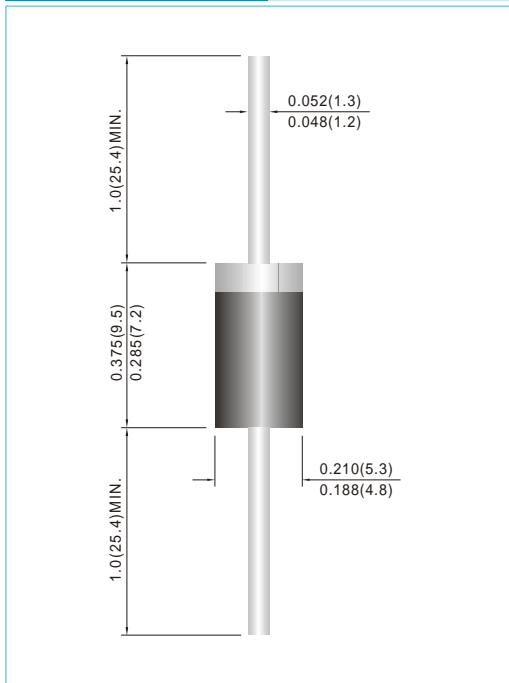
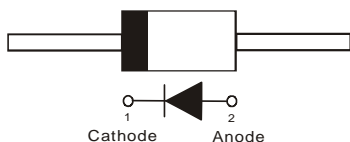
**DO-201AD** Unit : inch(mm)

### FEATURES

- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS 2011/65/EU directive

### MECHANICAL DATA

- Case : DO-201AD Molded Plastic
- Terminals : Axial leads, Solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode
- Weight : 0.04 ounces, 1.142 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>	45	V
Maximum rms voltage	V <sub>RMS</sub>	32	V
Maximum dc blocking voltage	V <sub>R</sub>	45	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	5	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	120	A
Typical thermal resistance (Note 1)	R <sub>θJA</sub> R <sub>θJL</sub>	32 14	°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. Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5 mm) lead length, P.C.B. mounted with 10cm x 10cm x 2pcs copper pads.



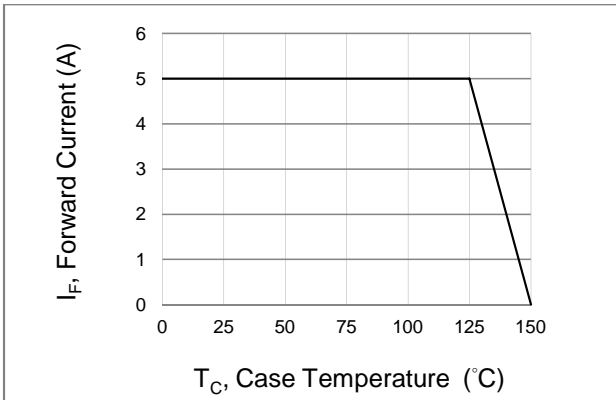
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## ELECTRICAL CHARACTERISTICS( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

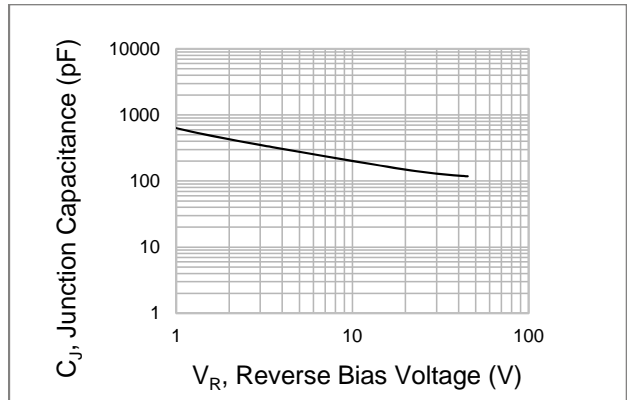
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	$V_{BR}$	$I_R=0.5\text{mA}$	45	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=1\text{A}$	-	0.32	-	V
		$I_F=3\text{A}$	-	0.38	-	
		$I_F=5\text{A}$	-	0.43	0.49	
		$I_F=1\text{A}$	-	0.23	-	V
$I_F=3\text{A}$	-	0.32	-			
Reverse current	$I_R$	$V_R=36\text{V}$	-	25	-	$\mu\text{A}$
		$V_R=45\text{V}$	-	-	210	$\mu\text{A}$
			-	7	-	mA



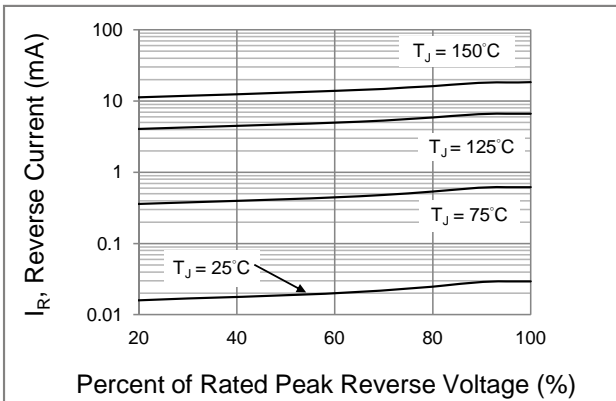
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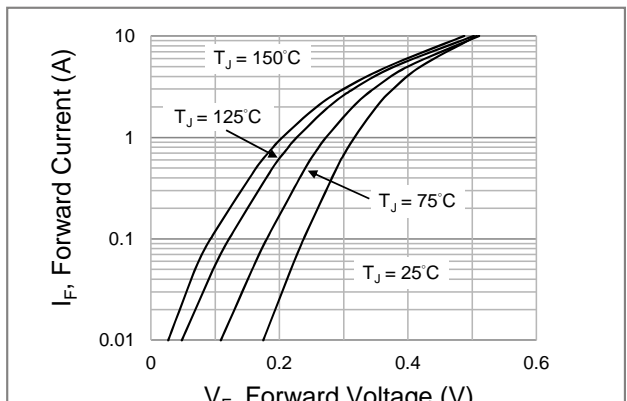
**Fig.1 Forward Current Derating Curve**



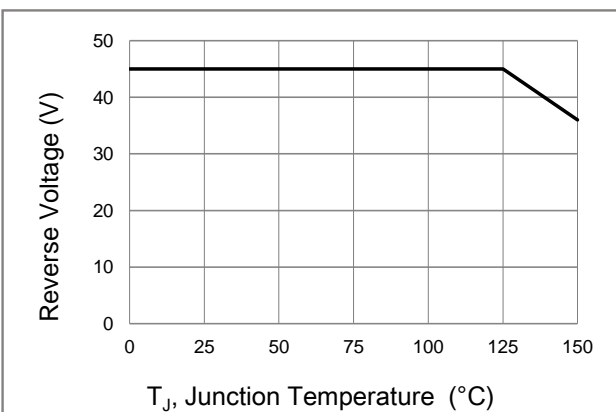
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**



**Fig.5 Operating Temperature Derating Curve**



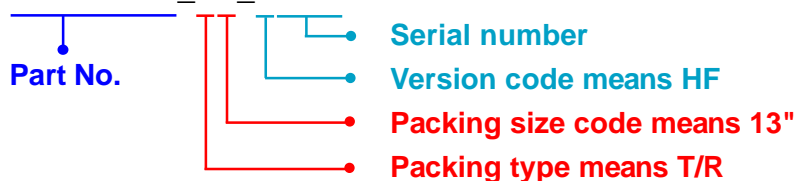
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## Part No\_packing code\_Version

SBM545LSS\_AY\_00001  
 SBM545LSS\_AY\_10001  
 SBM545LSS\_B0\_00001  
 SBM545LSS\_B0\_10001  
 SBM545LSS\_R2\_00001  
 SBM545LSS\_R2\_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)	<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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