

# SBM1550USS

## EXTREME LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 50 Volts **CURRENT** 15 Amperes

### FEATURES

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

### MECHANICAL DATA

Case : Molded plastic, DO-201AD

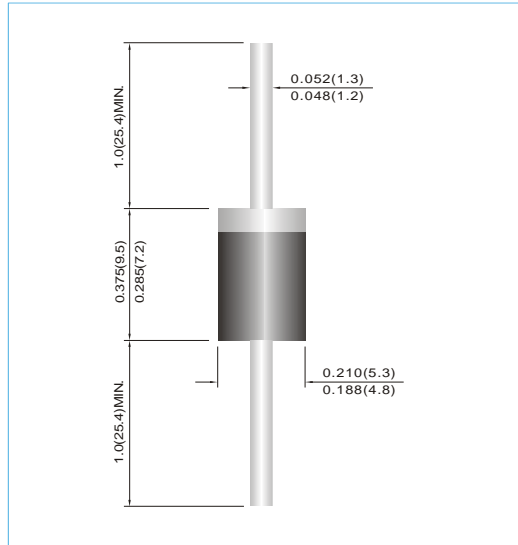
Terminals : Axial leads,solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

Approx weight : 0.0402 ounces, 1.142 grams

### DO-201AD

Unit : inch(mm)



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

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	V
Maximum rms voltage	V <sub>RMS</sub>	35	V
Maximum dc blocking voltage	V <sub>R</sub>	50	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	15	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	300	A
Typical thermal resistance (Note 1)	R <sub>θJA</sub> R <sub>θJL</sub>	25 10	°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.The testing condition of the thermal resistance (junction to ambient and junction to lead) is based on 0 lead length between two 10x10cm copper pad heatsinks.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	V <sub>BR</sub>	I <sub>R</sub> =0.5mA	50	-	-	V
Instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =1A	-	0.28	-	V
		I <sub>F</sub> =5A T <sub>J</sub> =25°C	-	0.35	-	
		I <sub>F</sub> =15A	-	0.43	0.49	
		I <sub>F</sub> =1A T <sub>J</sub> =125°C	-	0.18	-	V
Reverse current	I <sub>R</sub>	I <sub>F</sub> =5A	-	0.27	-	μA
		V <sub>R</sub> =40V	-	65	-	
		V <sub>R</sub> =50V T <sub>J</sub> =25°C	-	-	320	
		T <sub>J</sub> =125°C	-	22	-	mA

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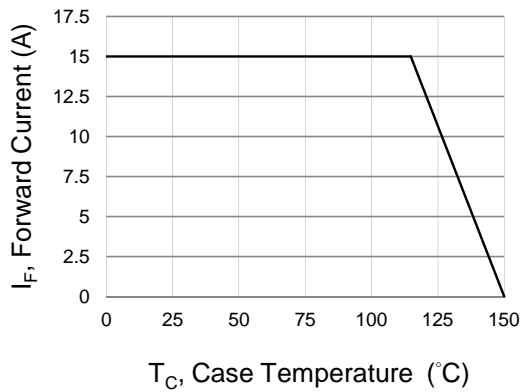


Fig.1 Forward Current Derating Curve

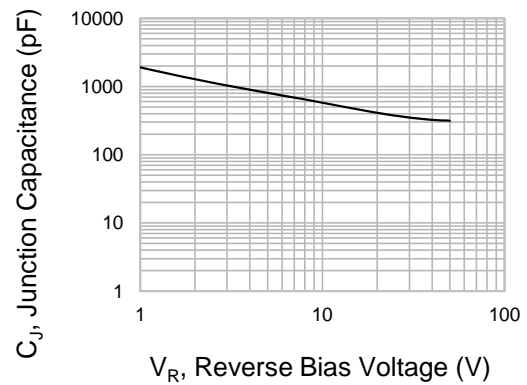


Fig.2 Typical Junction Capacitance

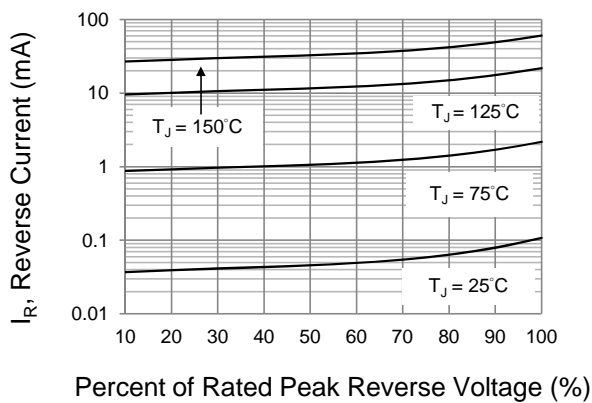


Fig.3 Typical Reverse Characteristics

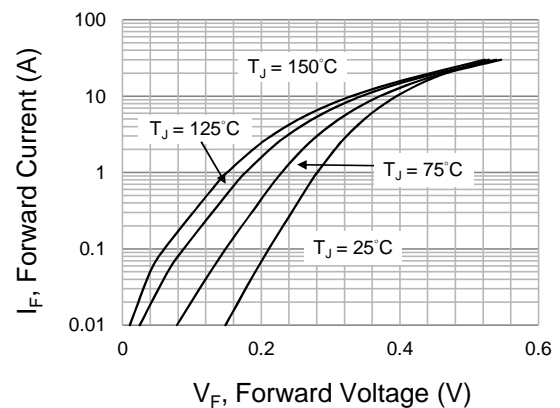


Fig.4 Typical Forward Characteristics

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## Part No\_packing code\_Version

SBM1550USS\_AY\_00001

SBM1550USS\_AY\_10001

SBM1550USS\_B0\_00001

SBM1550USS\_B0\_10001

SBM1550USS\_R2\_00001

SBM1550USS\_R2\_10001

For example :

RB500V-40\_R2\_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

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>	HF	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	RoHS	<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>			



## **SBM1550USS**

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