

# SBM860VSS

## ULTRA LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 60 Volt **CURRENT** 8 Ampere

### FEATURES

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

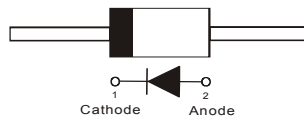
### MECHANICAL DATA

Case : Molded plastic, DO-201AD

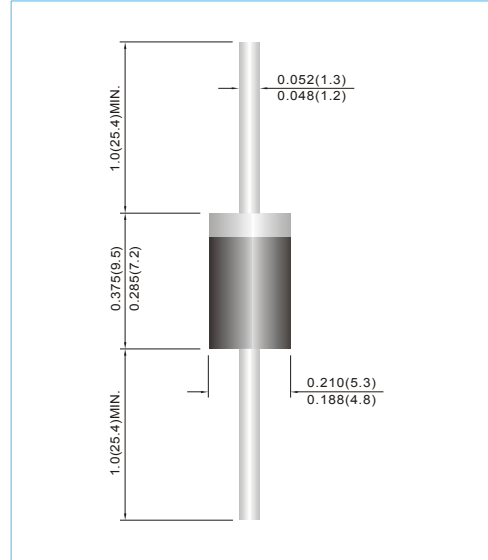
Terminals : Axial leads, solderable per MIL-STD-750, Method 2026

Polarity : Color band denotes cathode end

Approx weight : 0.0402 ounces, 1.142 grams



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



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

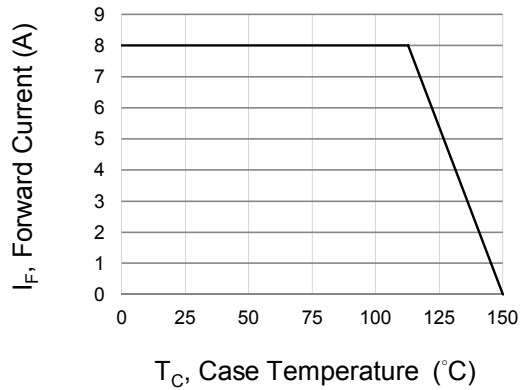
PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	60	V
Maximum rms voltage	$V_{RMS}$	42	V
Maximum dc blocking voltage	$V_R$	60	V
Maximum average forward rectified current	$I_{F(AV)}$	8	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150	A
Typical thermal resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	40 23	$^{\circ}\text{C/W}$
Operating junction temperature range	$T_J$	-55 to + 150	$^{\circ}\text{C}$
Storage temperature range	$T_{STG}$	-55 to + 150	$^{\circ}\text{C}$

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

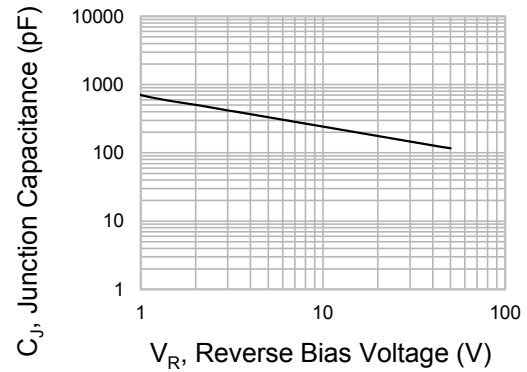
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage	$V_{BR}$	$I_R=0.5\text{mA}$	60	-	-	V
Instantaneous forward voltage	$V_F$	$I_F=1\text{A}$ $T_J=25^{\circ}\text{C}$	-	0.31	-	V
		$I_F=5\text{A}$	-	0.42	-	V
		$I_F=8\text{A}$	-	0.49	0.55	V
		$I_F=1\text{A}$ $T_J=125^{\circ}\text{C}$	-	0.22	-	V
Reverse current	$I_R$	$V_R=48\text{V}$	-	38	-	$\mu\text{A}$
		$V_R=60\text{V}$ $T_J=25^{\circ}\text{C}$	-	-	220	$\mu\text{A}$
		$T_J=125^{\circ}\text{C}$	-	12	-	$\text{mA}$

Note : 1.The testing condition of the thermal resistance (junction to ambient and junction to lead) is based on 0.375"(9.5mm) lead length between two 10x10cm copper pad heatsinks.

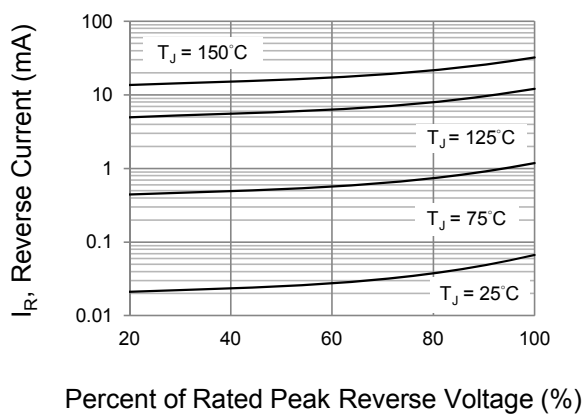
## SBM860VSS



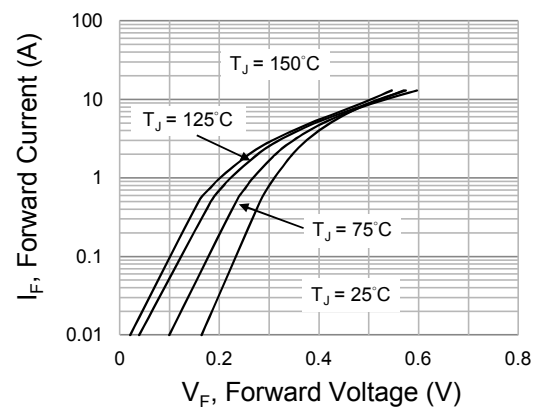
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

## SBM860VSS

### Part No\_packing code\_Version

SBM860VSS\_AY\_00001  
SBM860VSS\_AY\_10001  
SBM860VSS\_B0\_00001  
SBM860VSS\_B0\_10001  
SBM860VSS\_R2\_00001  
SBM860VSS\_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>	<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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