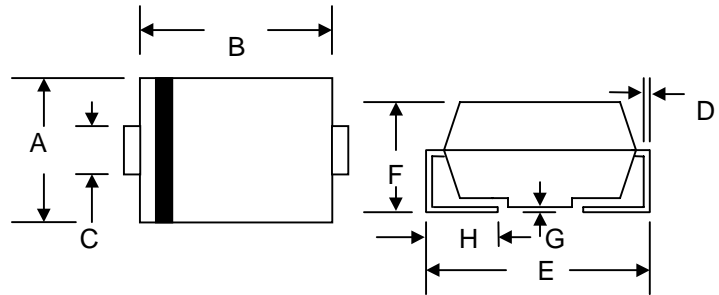


## 1.0A SURFACE MOUNT GLASS PASSIVATED RECTIFIER

### Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-O



### Mechanical Data

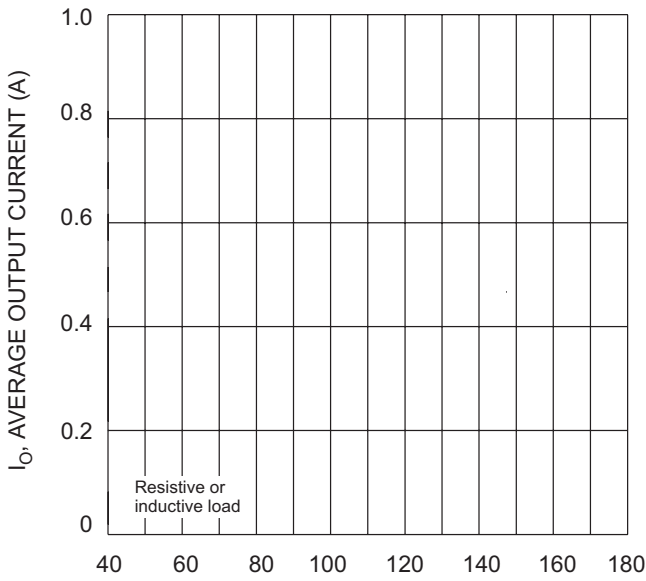
- Case: Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)

SMB/DO-214AA		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.70
C	1.91	2.11
D	0.152	0.305
E	5.08	5.59
F	2.13	2.44
G	0.051	0.203
H	0.76	1.27
All Dimensions in mm		

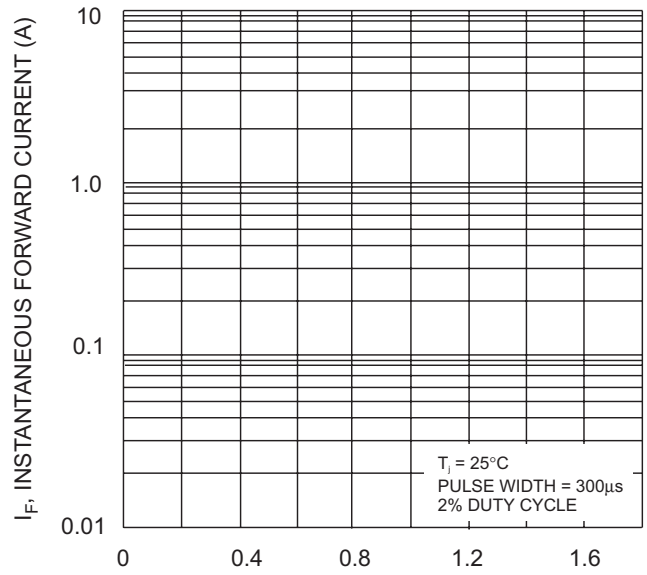
### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	S1A	S1B	S1D	S1G	S1J	S1K	S1M	Unit	
Peak Repetitive Reverse Voltage	$V_{RRM}$									
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	V	
DC Blocking Voltage	$V_R$									
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V	
Average Rectified Output Current @ $T_L = 100^\circ\text{C}$	$I_O$	1.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30								A
Forward Voltage @ $I_F = 1.0\text{A}$	$V_{FM}$	1.10								V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	$I_{RM}$	5.0 200								$\mu\text{A}$
Reverse Recovery Time (Note 1)	$t_{rr}$	2.5								$\mu\text{S}$
Typical Junction Capacitance (Note 2)	$C_j$	15								pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	30								K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +175								$^\circ\text{C}$

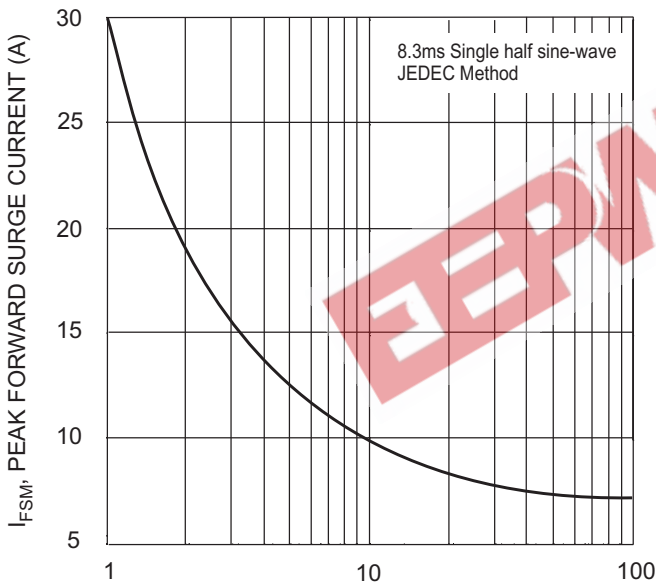
Note: 1. Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{rr} = 0.25\text{A}$ ,  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.  
 3. Mounted on P.C. Board with 8.0mm<sup>2</sup> land area.



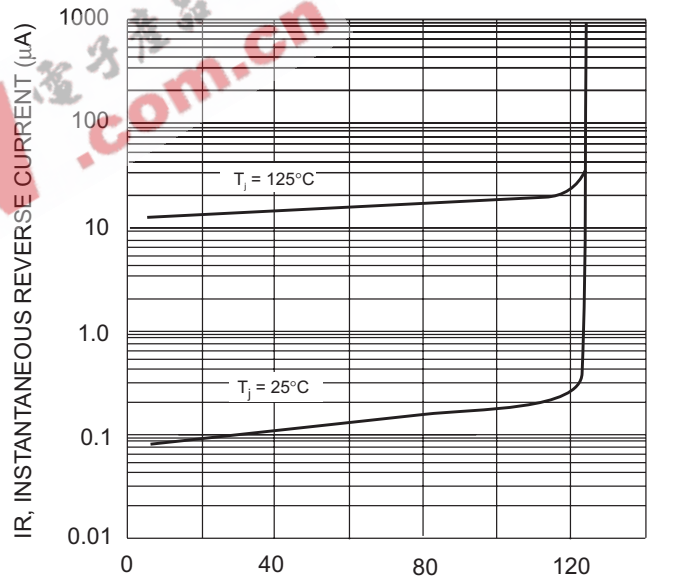
$T_L$ , LEAD TEMPERATURE ( $^{\circ}\text{C}$ )  
Fig. 1 Forward Current Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES @ 60Hz  
Fig. 3 Max Non-Repetitive Peak Fwd Surge Current



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)  
Fig. 4 Typical Reverse Characteristics

## ORDERING INFORMATION

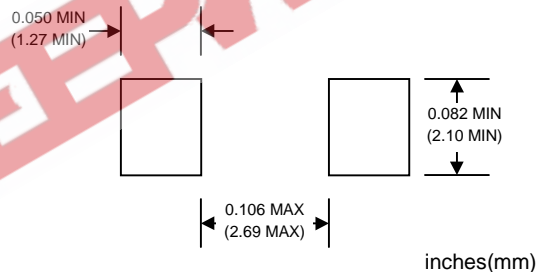
Product No.♦	Package Type	Shipping Quantity
S1A-T1	SMB	500/Tape & Reel
<b>S1A-T3</b>	SMB	3000/Tape & Reel
S1B-T1	SMB	500/Tape & Reel
<b>S1B-T3</b>	SMB	3000/Tape & Reel
S1D-T1	SMB	500/Tape & Reel
<b>S1D-T3</b>	SMB	3000/Tape & Reel
S1G-T1	SMB	500/Tape & Reel
<b>S1G-T3</b>	SMB	3000/Tape & Reel
S1J-T1	SMB	500/Tape & Reel
<b>S1J-T3</b>	SMB	3000/Tape & Reel
S1K-T1	SMB	500/Tape & Reel
<b>S1K-T3</b>	SMB	3000/Tape & Reel
S1M-T1	SMB	500/Tape & Reel
<b>S1M-T3</b>	SMB	3000/Tape & Reel

Products listed in **bold** are WTE Preferred devices.

♦T1 suffix refers to a 7" reel. T3 suffix refers to a 13" reel.

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

## RECOMMENDED FOOTPRINT



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