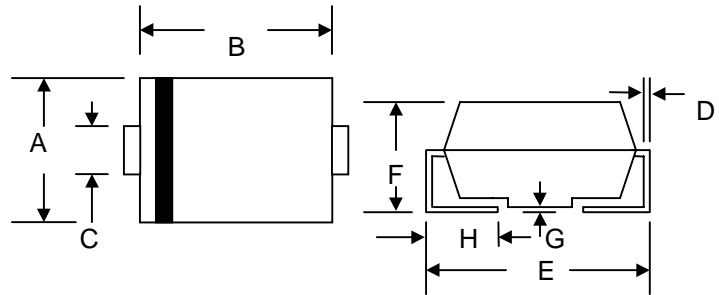


## 1.0A SURFACE MOUNT GLASS PASSIVATED RECTIFIER

### 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

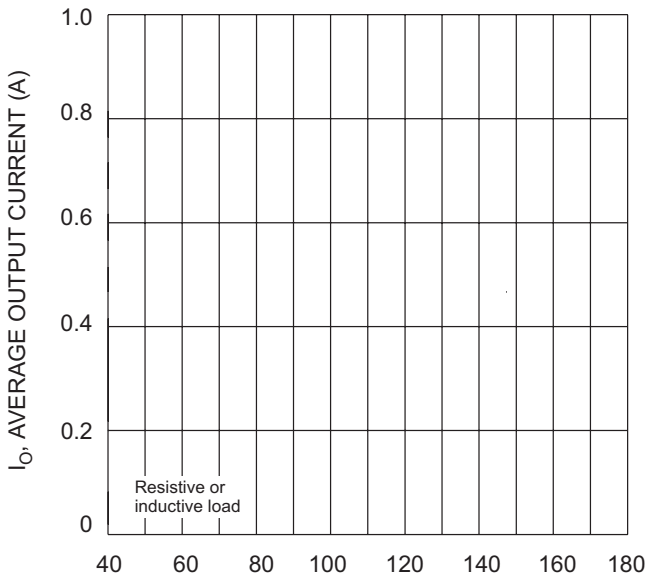
- Case: Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.093 grams (approx.)

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		

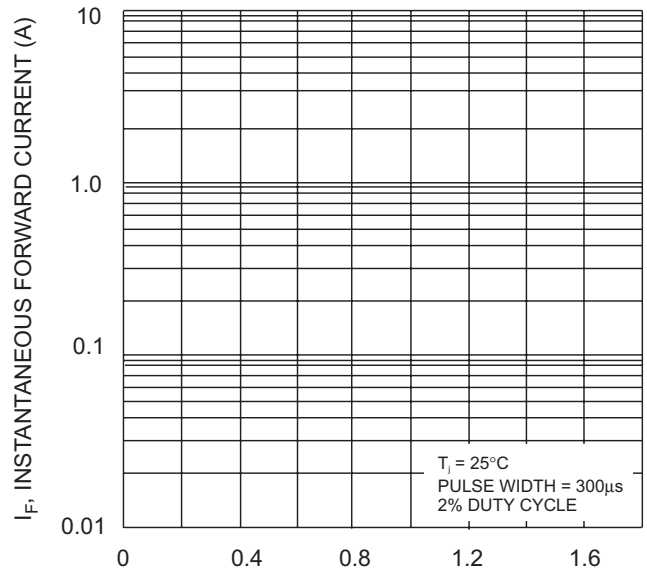
### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	S1A	S1B	S1D	S1G	S1J	S1K	S1M	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>								
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V <sub>R</sub>								
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>L</sub> = 100°C	I <sub>O</sub>	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30							A
Forward Voltage @I <sub>F</sub> = 1.0A	V <sub>FM</sub>	1.10							V
Peak Reverse Current @T <sub>A</sub> = 25°C	I <sub>RM</sub>	5.0							μA
At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C		200							
Reverse Recovery Time (Note 1)	t <sub>rr</sub>	2.5							μS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	15							pF
Typical Thermal Resistance (Note 3)	R <sub>θJL</sub>	30							K/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +175							°C

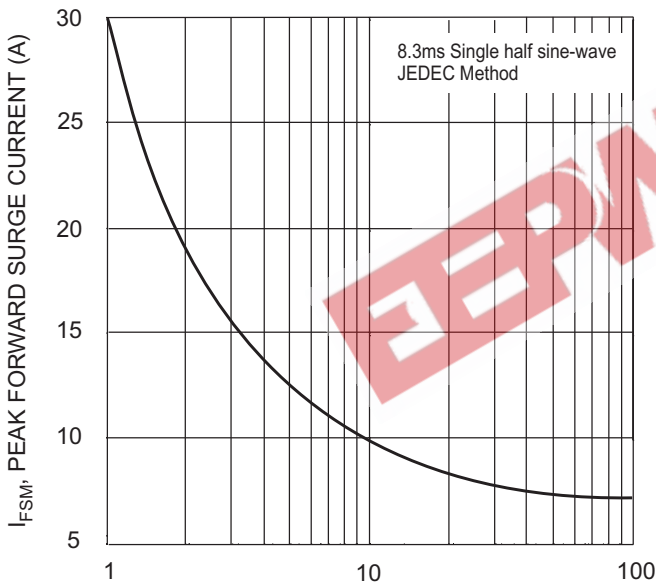
Note: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = 0.25A,  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.  
 3. Mounted on P.C. Board with 8.0mm<sup>2</sup> land area.



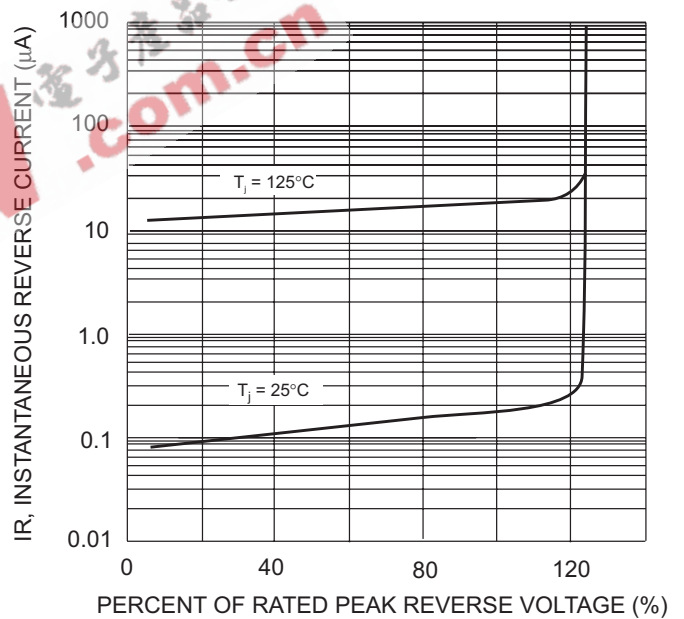
$T_L$ , LEAD TEMPERATURE ( ° C )  
Fig. 1 Forward Current Derating Curve



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



$I_{FSM}$ , PEAK FORWARD SURGE CURRENT ( A )  
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

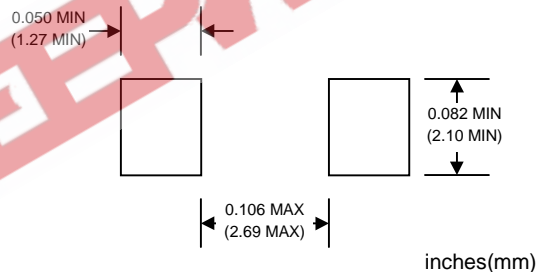
Product No.◆	Package Type	Shipping Quantity
S1A-T1	SMB	500/Tape & Reel
<b>S1A-T3</b>	SMB	3000/Tape & Reel
S1B-T1	SMB	500/Tape & Reel
<b>S1B-T3</b>	SMB	3000/Tape & Reel
S1D-T1	SMB	500/Tape & Reel
<b>S1D-T3</b>	SMB	3000/Tape & Reel
S1G-T1	SMB	500/Tape & Reel
<b>S1G-T3</b>	SMB	3000/Tape & Reel
S1J-T1	SMB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