

# S3AB – S3MB

### 3.0A SURFACE MOUNT GLASS PASSIVATED STANDARD DIODE



#### Features

- Glass Passivated Die Construction
- Ideally Suited for Automatic Assembly
- Low Forward Voltage Drop
- Surge Overload Rating to 100A Peak
- Low Power Loss
- Built-in Strain Relief
- Plastic Case Material has UL Flammability Classification Rating 94V-0

## Mechanical Data

- Case: SMB/DO-214AA, 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.)
- Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4

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SMB/DO-214AA				
Dim	Min	Max		
Α	3.30	3.94		
В	4.06 4.70			
С	1.91	2.11		
D	0.152	0.305		
ш	5.08	5.59		
F	2.13	2.44		
G	0.051	0.203		
Н	0.76	1.27		
All Dimensions in mm				

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

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

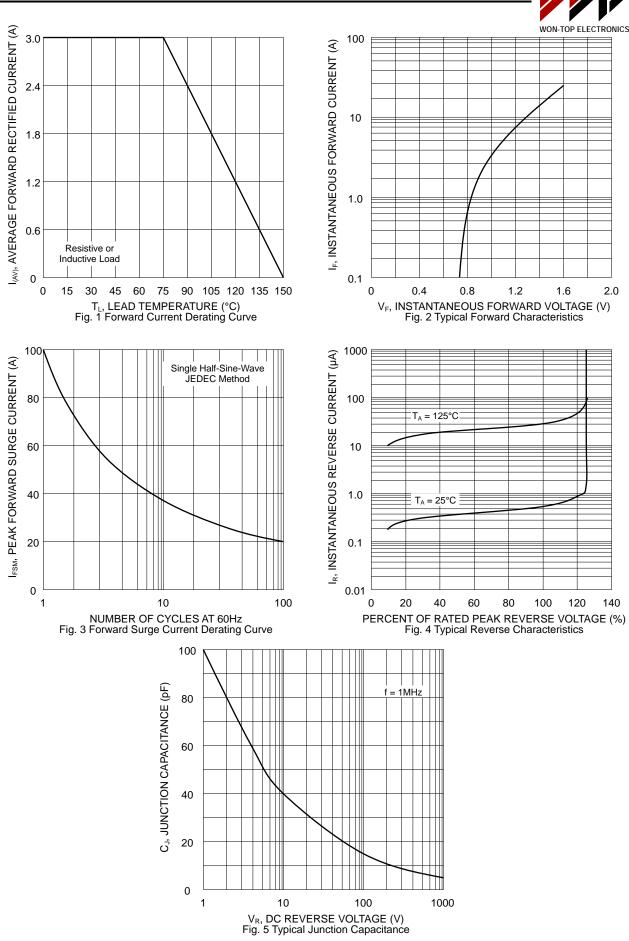
Characteristic	Symbol	S3AB	S3BB	S3DB	S3GB	S3JB	<b>S3KB</b>	S3MB	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	Vrrm Vrwm Vr	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	V
Average Rectified Output Current $@T_L = 75^{\circ}C$	lo				3.0				А
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	IFSM				100				А
Forward Voltage $@I_F = 3.0A$	Vfm	1.15				V			
Peak Reverse Current $@T_A = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_A = 125^{\circ}C$	Iгм				10 250				μA
Typical Junction Capacitance (Note 1)	CJ				60				pF
Typical Thermal Resistance (Note 2) Typical Thermal Resistance (Note 3)	R JA R JL				50 15				°C/W
Operating and Storage Temperature Range	TJ, TSTG			-(	65 to +15	50			°C

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.

2. Junction to ambient, device mounted on PCB with 8.0mm x 8.0mm copper pads.

3. Junction to lead, device mounted on PCB with 8.0mm x 8.0mm copper pads.

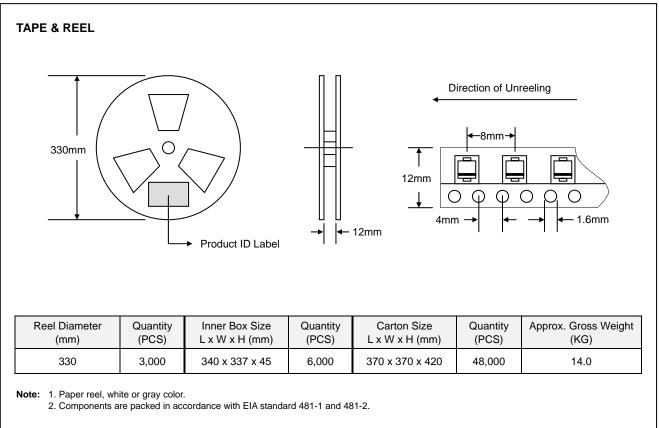
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#### **MARKING INFORMATION RECOMMENDED FOOTPRINT** 0.050 MIN (1.27 MIN) Ť 0.082 MIN (2.10 MIN) Ŧ = Polarity Band Cathode ◆ 0.106 MAX (2.69 MAX) ◆ S3xB = Device Number х = A, B, D, G, J, K or M inches(mm)

### PACKAGING INFORMATION





Product No.	Package Type	Shipping Quantity				
S3AB-T3	SMB	3000/Tape & Reel				
S3BB-T3	SMB	3000/Tape & Reel				
S3DB-T3	SMB	3000/Tape & Reel				
S3GB-T3	SMB	3000/Tape & Reel				
S3JB-T3	SMB	3000/Tape & Reel				
S3KB-T3	SMB	3000/Tape & Reel				
S3MB-T3	SMB	3000/Tape & Reel				

#### **ORDERING INFORMATION**

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

 To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, S3AB-T3-LF.

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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