

## SMB Surface Mount Schottky Barrier Rectifier

### Features

- For surface mounted applications
- High forward surge current capability
- Low power losses, high efficiency
- Built-in strain relief, ideal for automated placement
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

**Reverse Voltage**  
20-200 V

**Forward Current**  
2 Ampere

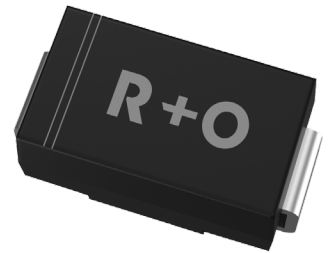
### Applications

For use in low voltage high frequency inverters, free wheeling, DC/DC converters, and polarity protection applications.

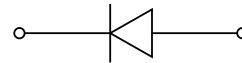
### Mechanical Data

- Case: DO-214AA(SMB)  
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end

DO-214AA(SMB)



### Function Diagram



### Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS22B	SS23B	SS24B	SS25B	SS26B	SS28B	SS210B	SS215B	SS220B	
Device marking code			SS22B	SS23B	SS24B	SS25B	SS26B	SS28B	SS210B	SS215B	SS220B	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	20	30	40	50	60	80	100	150	200	
Maximum RMS Voltage	V <sub>RMS</sub>	V	14	21	28	35	42	56	70	105	140	
Maximum DC blocking Voltage	V <sub>DC</sub>	V	20	30	40	50	60	80	100	150	200	
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load, TL (Fig.1)	I <sub>F(AV)</sub>	A	2.0									
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I <sub>FSM</sub>	A	50									
Storage temperature	T <sub>stg</sub>	°C	-55 ~ +150									
Junction temperature	T <sub>j</sub>	°C	-55 ~ +125					-55 ~ +150				
Typical Thermal Resistance	R <sub>θJA</sub>	°C/W	60									
	R <sub>θJL</sub>	°C/W	17									

## Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	SS22B	SS23B	SS24B	SS25B	SS26B	SS28B	SS210B	SS215B	SS220B
Maximum instantaneous forward voltage	$I_F=2.0A$	$V_F$	V	0.55		0.70		0.85		0.95		
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^\circ C$	$I_{R1}$	mA	1.0							0.2	
	$V_R=V_{DC}, T_A=100^\circ C$	$I_{R2}$		20					5.0		2.0	
Typical junction capacitance	4.0V DC, 1MHz	$C_J$	pF	220				180				

## Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

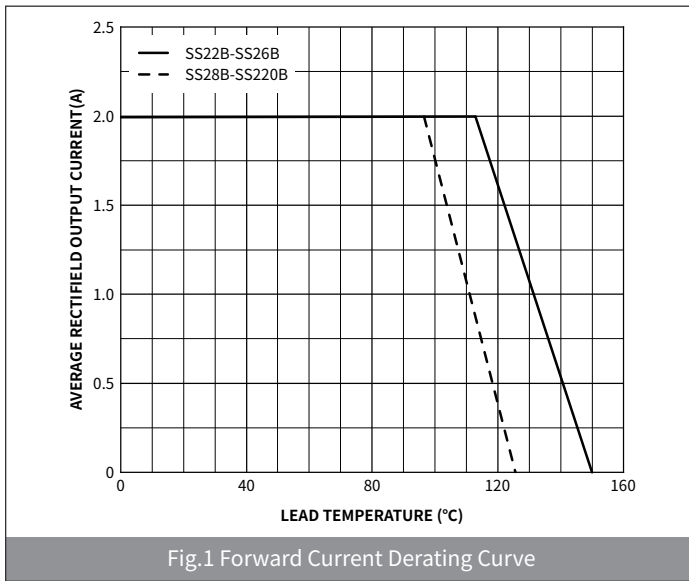


Fig.1 Forward Current Derating Curve

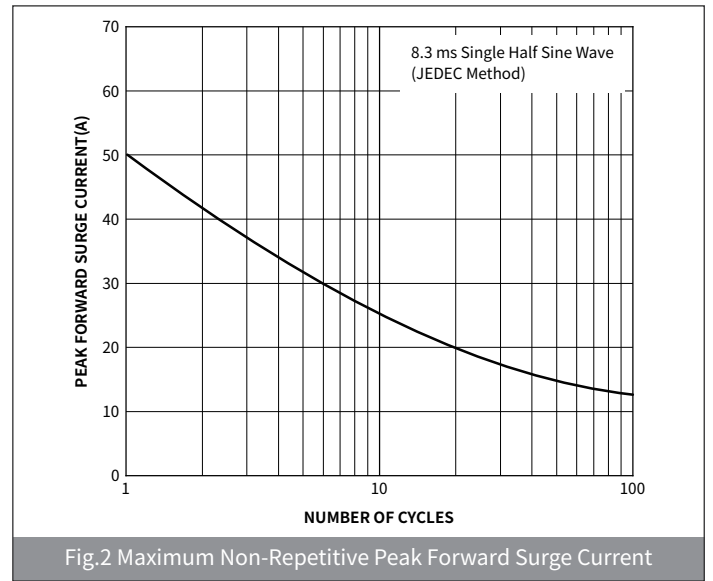


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

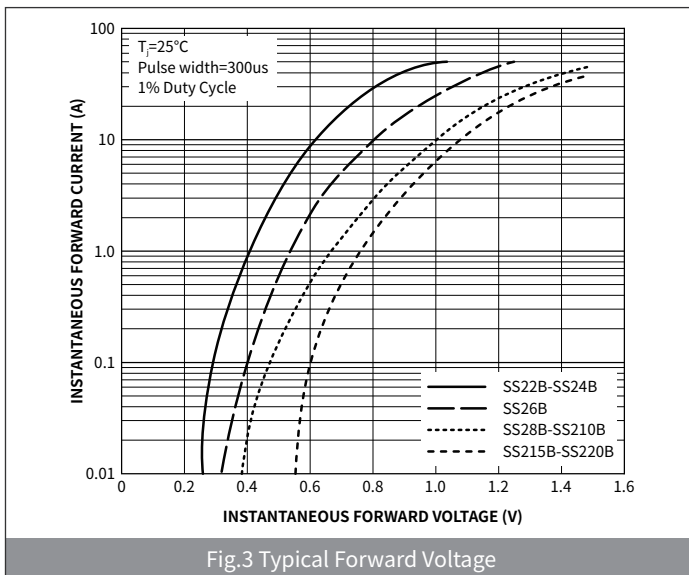


Fig.3 Typical Forward Voltage

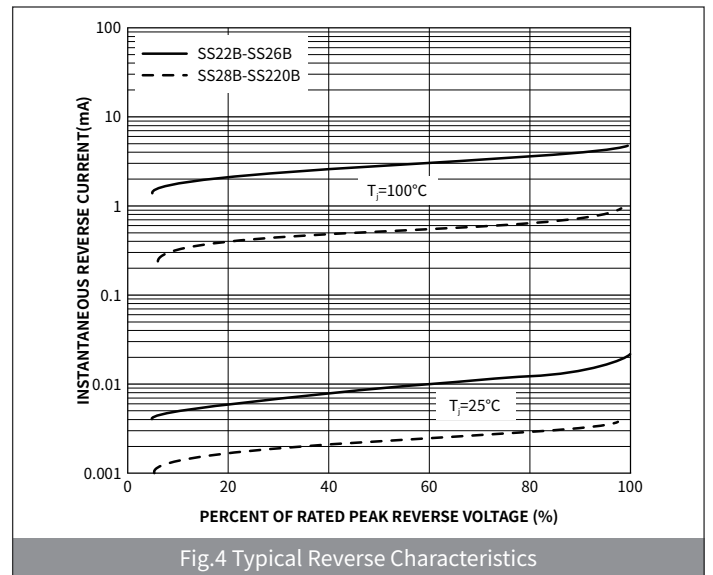


Fig.4 Typical Reverse Characteristics

## ● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SMB	R3	0.098	3000	6000	48000	13"

## ● Package Outline Dimensions (SMB/DO-214AA)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.85	2.21	0.073	0.087
B	4.25	4.85	0.167	0.191
C	3.30	3.94	0.130	0.155
D	2.15	2.65	0.085	0.104
E	0.75	1.52	0.030	0.060
F	-	0.203	-	0.008
G	5.08	5.59	0.200	0.220
H	0.15	0.31	0.006	0.012

## ● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	2.26	-	0.089	-
J	2.10	-	0.085	-
K	-	2.74	-	0.107