SS22B THRU SS2200B
SURFACE MOUNT SCHOTTKY

MAOYUANWEI semiconductor

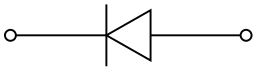
Features

DO-214AA(SMB)

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

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

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

PARAMETER	SYMBOL	UNIT	SS22B	SS24B	SS245B	SS26B	SS28B	SS210B	SS215B	SS220B
Device marking code			SS22B	SS24B	SS245B	SS26B	SS28B	SS210B	SS215B	SS220B
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	20	40	45	60	80	100	150	200
Maximum RMS Voltage	V_{RMS}	V	14	28	31.5	42	56	70	105	140
Maximum DC blocking Voltage	V_{DC}	V	20	40	45	60	80	100	150	200
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load,TL (Fig.1)	$I_{F(AV)}$	A	2.0							
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	50							
Storage temperature	T_{stg}	°C	-55 ~ +150							
Junction temperature	T_j	°C	-55 ~ +125				-55 ~ +150			
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	60							
	$R_{\theta J-L}$	°C /W	17							

Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	TEST CONDITIONS		SYMBOL	UNIT	SS22B	SS24B	SS245B	SS26B	SS28B	SS210B	SS2150B	SS2200B
Maximum instantaneous forward voltage	I_F=2.0A		V_F	V	0.55			0.70	0.85		0.95	
Maximum DC reverse currentat rated DC blocking voltage	$V_{RM}=V_{DC}$	Ta=25°C	I_R	mA	0.2				0.02			
		Ta=100°C			10				5.0			
Typical junction capacitance	4.0V DC,1MHz		C_J	pF	220			180				

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	SS22	SS23	SS24	SS25	SS26	SS28	SS210	SS215	SS220
Maximum instantaneous forward voltage	I_F=2.0A	V_F	V	0.55			0.70		0.85		0.95	
Maximum DC reverse currentat rated DC blocking voltage	V_R=V_{DC}, T_A=25°C	I_{R1}	mA	0.2					0.05			
	V_R=V_{DC}, T_A=100°C	I_{R2}		10					5			
Typical junction capacitance	4.0V DC,1MHz	C_J	pF	220			80					

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

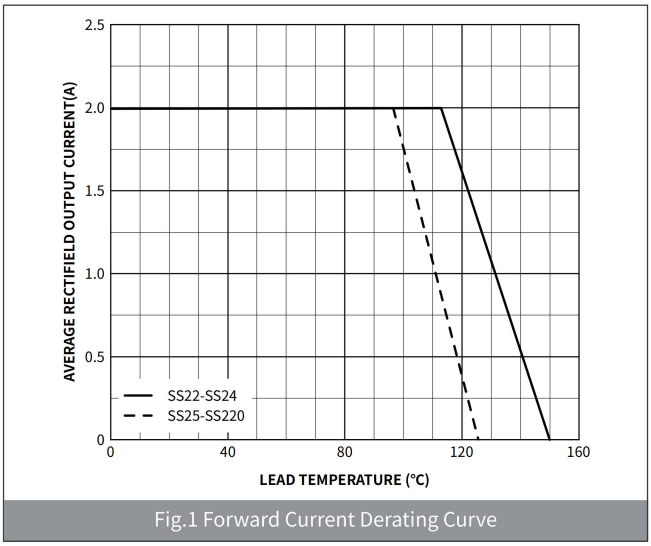


Fig.1 Forward Current Derating Curve

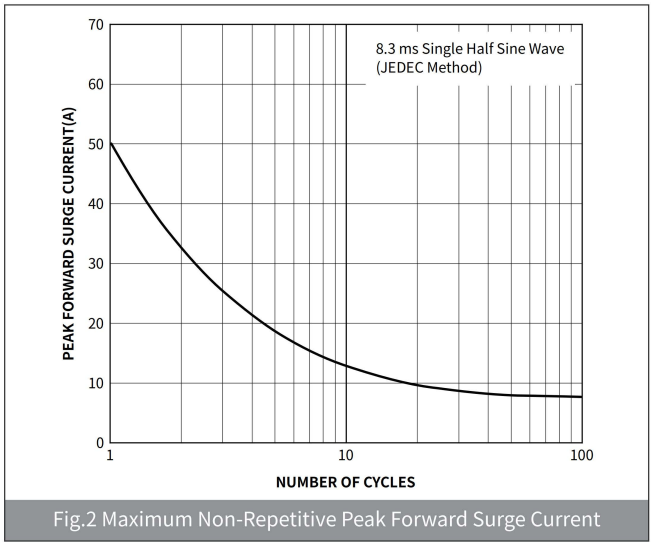


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

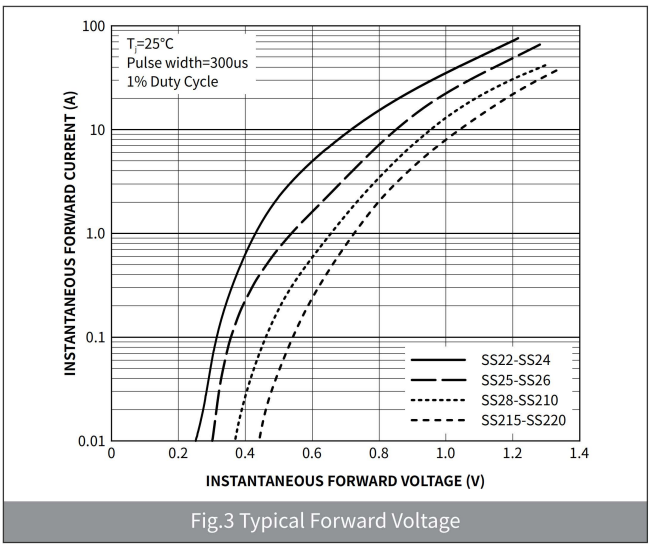


Fig.3 Typical Forward Voltage

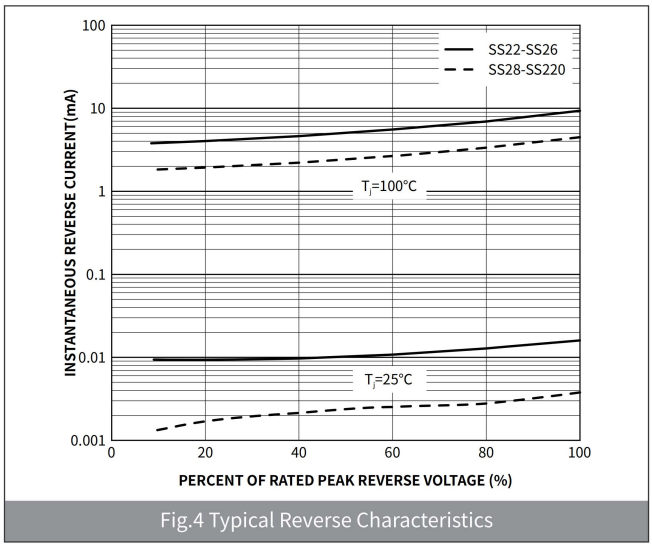
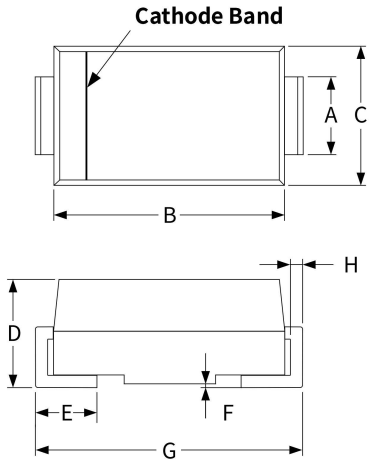


Fig.4 Typical Reverse Characteristics

Ordering Information

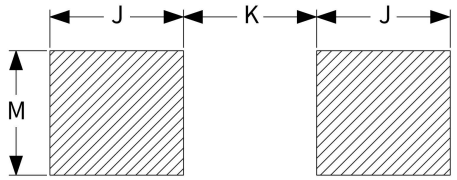
PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SMA	R2	0.07	5000	10000	80000	11''
SMA	R3	0.07	7500	15000	120000	13''

Package Outline Dimensions (SMA/DO-214AC)



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.25	1.65	0.049	0.065
B	3.95	4.65	0.156	0.183
C	2.35	2.85	0.093	0.112
D	1.98	2.41	0.078	0.095
E	0.76	1.52	0.030	0.060
F	-	0.203	-	0.008
G	4.70	5.30	0.185	0.209
H	0.15	0.31	0.006	0.012

Suggested Pad Layout



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	1.70	-	0.067	-
J	2.10	-	0.082	-
K	-	2.30	-	0.090