

SS22 THRU SS220

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

SMA Surface Mount Schottky Barrier Rectifier

Features

- 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

These Schottky barrier diodes are designed for high speed switching applications, circuit protection, and voltage clamping.

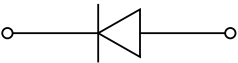
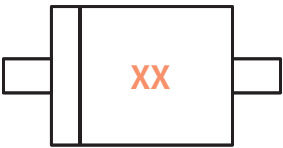
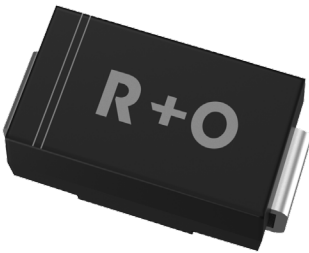
Mechanical Data

- Case: DO-214AC(SMA)
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

Function Diagram

Reverse Voltage
20-200 V
Forward Current
2 Ampere

DO-214AC(SMA)



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

PARAMETER	SYMBOL	UNIT	SS22	SS23	SS24	SS25	SS26	SS28	SS210	SS215	SS220
Device marking code			SS22	SS23	SS24	SS25	SS26	SS28	SS210	SS215	SS220
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	V	20	30	40	50	60	80	100	150	200
Maximum RMS Voltage	V _{RMS}	V	14	21	28	35	42	56	70	105	140
Maximum DC blocking Voltage	V _{DC}	V	20	30	40	50	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 ~ +150								
Typical Thermal Resistance	R _{θJ-A}	°C /W	80								
	R _{θJ-L}	°C /W	20								

● 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 current at rated DC blocking voltage	V _R =V _{DC} , T _A =25°C	I _{R1}	mA	0.5					0.05			
	V _R =V _{DC} , T _A =100°C	I _{R2}		50					10			
Typical junction capacitance	4.0V DC,1MHz	C _J	pF	500			300					

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

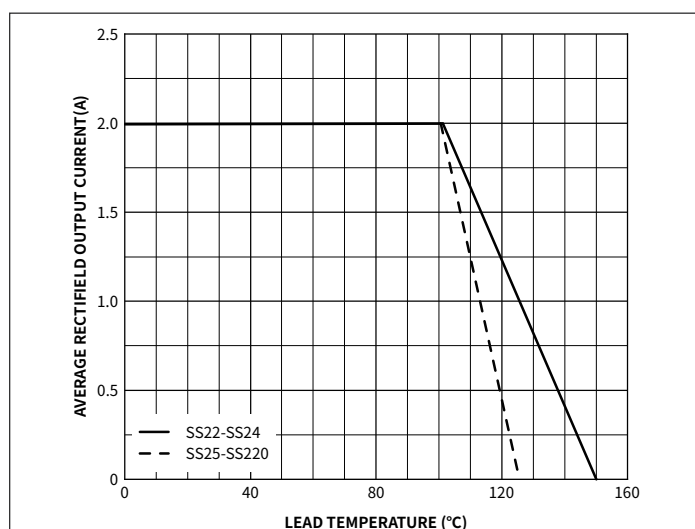


Fig.1 Forward Current Derating Curve

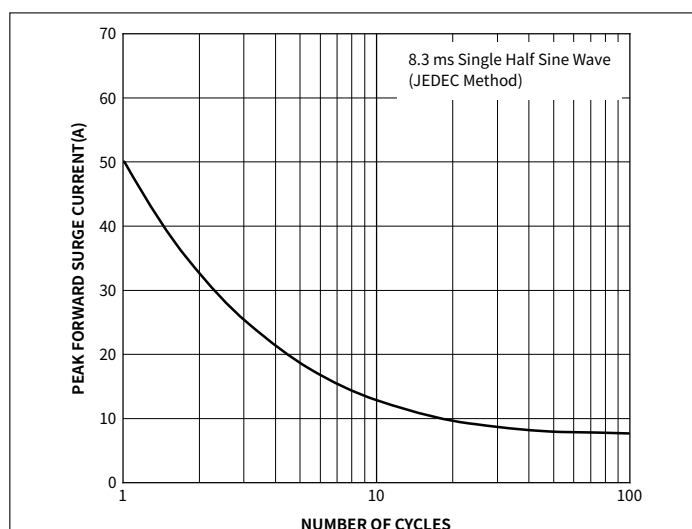


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

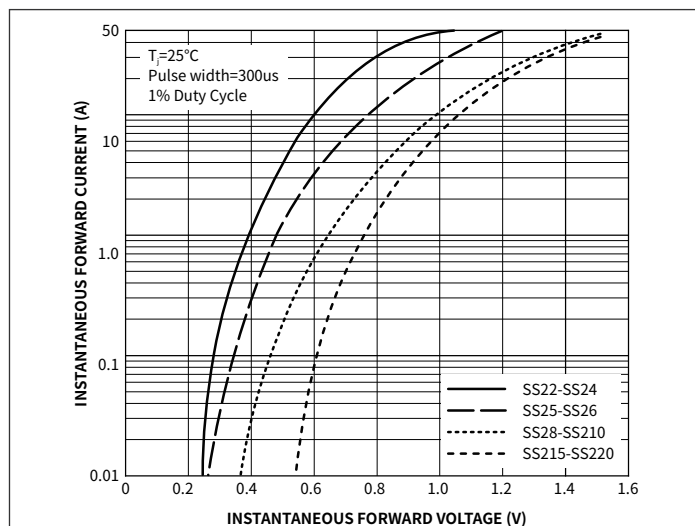


Fig.3 Typical Forward Voltage

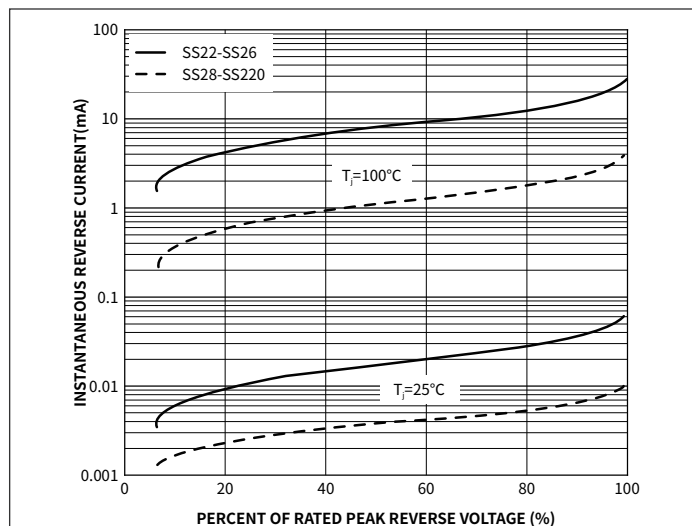


Fig.4 Typical Reverse Characteristics

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● 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