

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

Reverse Voltage

20-200 V

Forward Current

3 Ampere

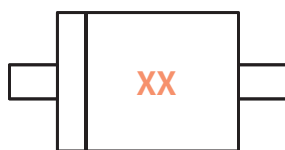
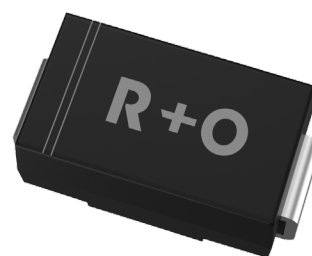
Applications

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

DO-214AC(SMA)


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

PARAMETER	SYMBOL	UNIT	SS32	SS33	SS34	SS35	SS36	SS38	SS310	SS315	SS320
Device marking code			SS32	SS33	SS34	SS35	SS36	SS38	SS310	SS315	SS320
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	3.0								
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	80								
Storage temperature	T_{stg}	°C	-55 ~ +150								
Junction temperature	T_j	°C	-55 ~ +150								
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	80								
	$R_{\theta J-L}$	°C /W	20								

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	SS32	SS33	SS34	SS35	SS36	SS38	SS310	SS315	SS320
Maximum instantaneous forward voltage	I _F =3.0A	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)

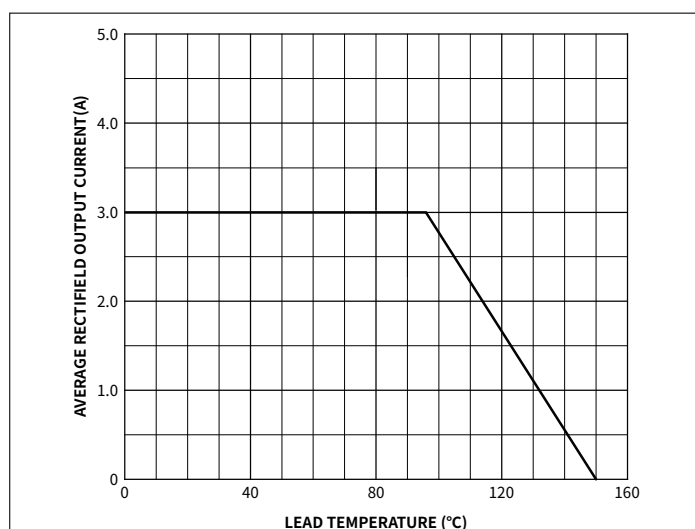


Fig.1 Forward Current Derating Curve

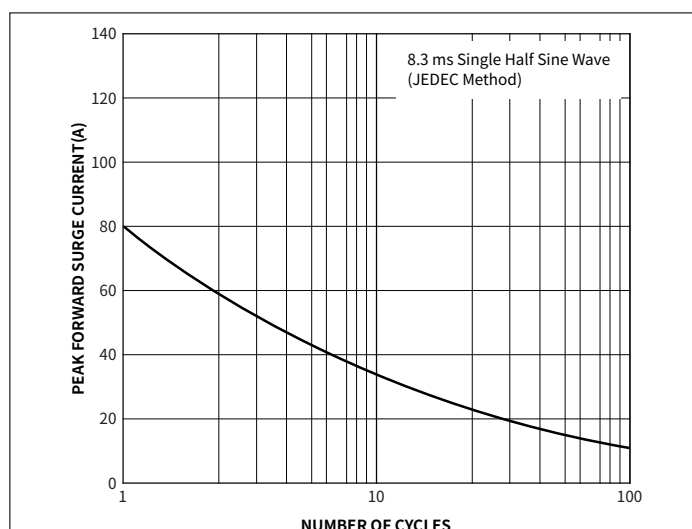


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

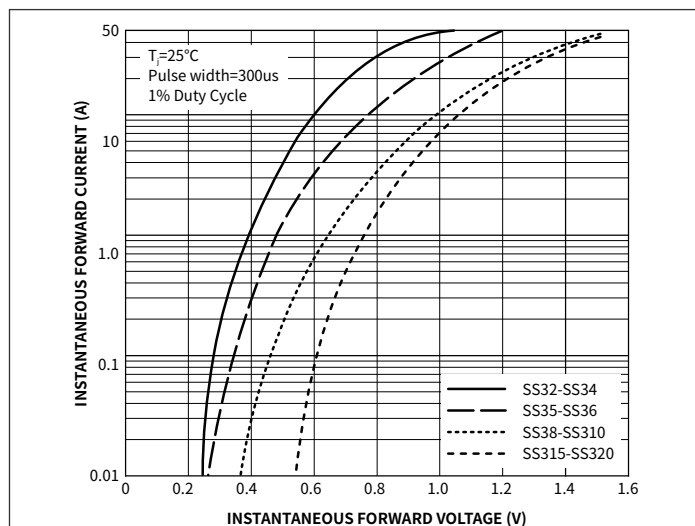


Fig.3 Typical Forward Voltage

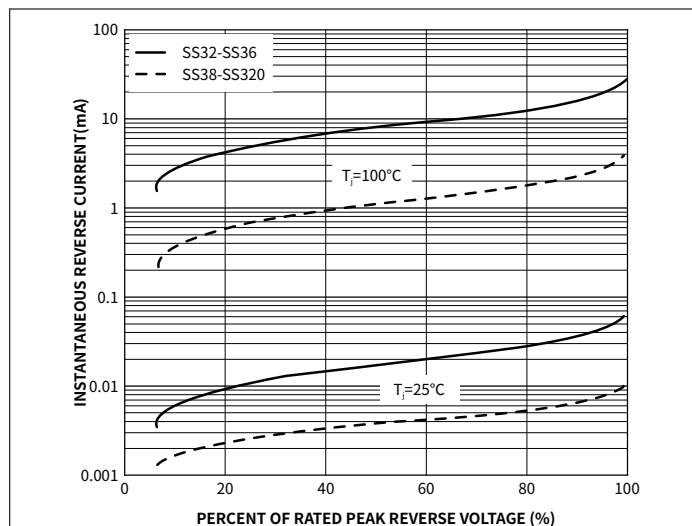


Fig.4 Typical Reverse Characteristics

SS32 THRU SS320

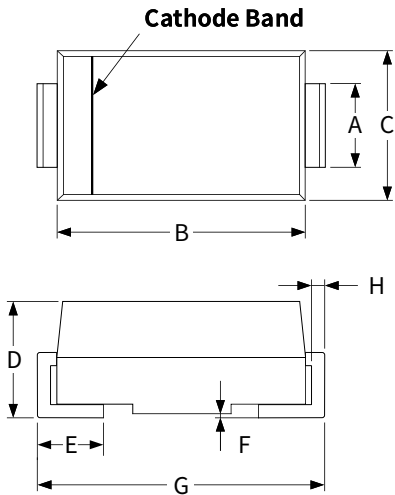
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

● 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)

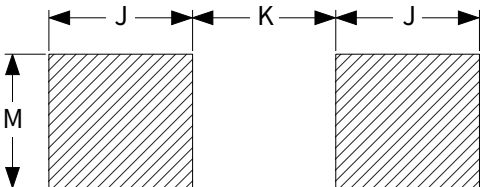
Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.25	1.65	0.049	0.065
B	3.95	4.65	0.156	0.183
C	2.35	2.85	0.093	0.112
D	1.98	2.41	0.078	0.095
E	0.76	1.52	0.030	0.060
F	-	0.203	-	0.008
G	4.70	5.30	0.185	0.209
H	0.15	0.31	0.006	0.012



The diagram shows two views of the SMA package. The top view is a rectangle with dimensions B (width) and C (height). A vertical line on the left side is labeled 'Cathode Band'. The bottom view is a cross-section showing the package height D, the lead thickness H, the lead width E, the lead pitch F, and the total width G.

● 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



The diagram shows a top view of the suggested pad layout. It consists of two rectangular pads. The width of each pad is J, the height is M, and the distance between the pads is K.