

SMA Surface Mount Schottky Barrier Rectifier

● Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency

Reverse Voltage
100 V
Forward Current
5 Ampere

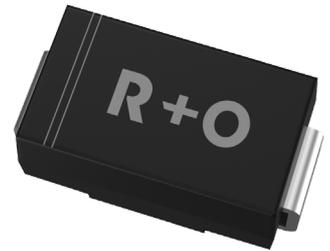
● Applications

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

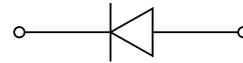
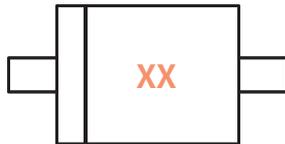
● Mechanical Data

- 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

DO-214AC(SMA)



● Function Diagram



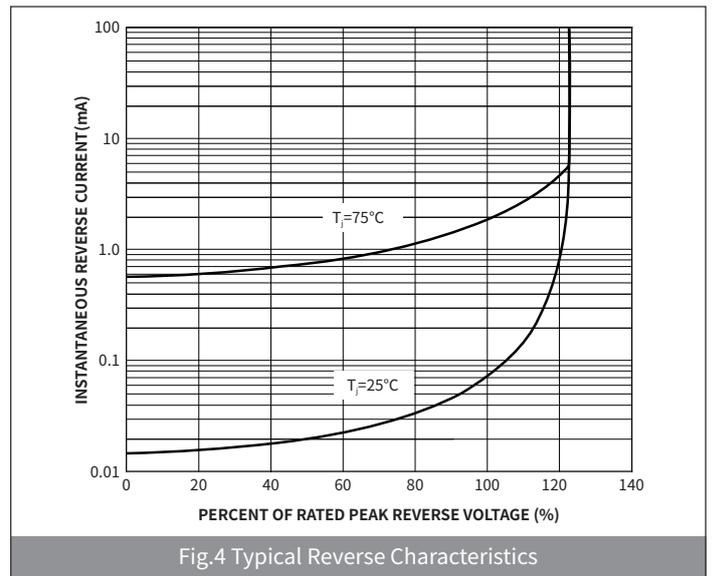
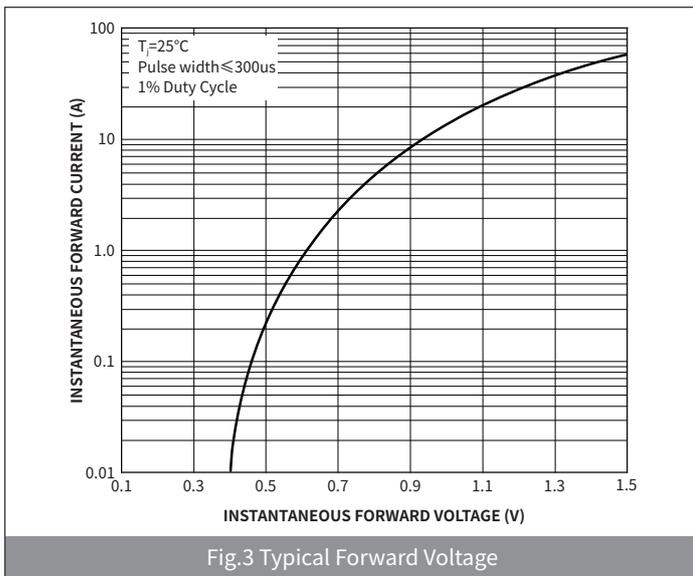
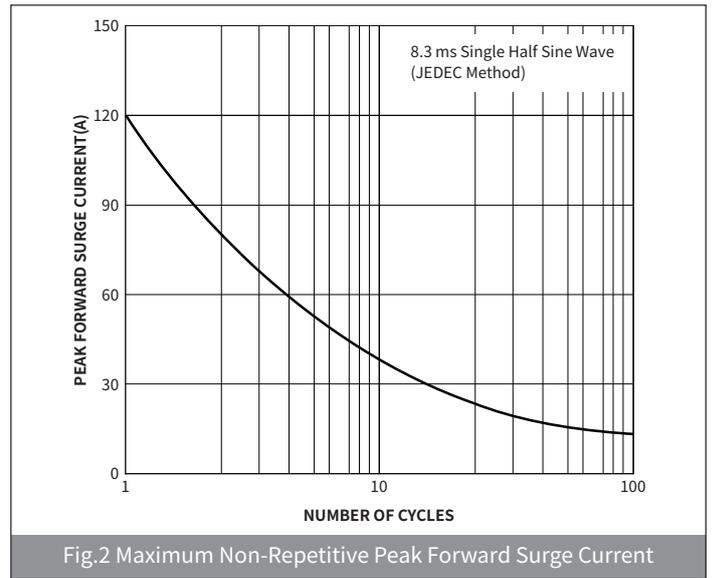
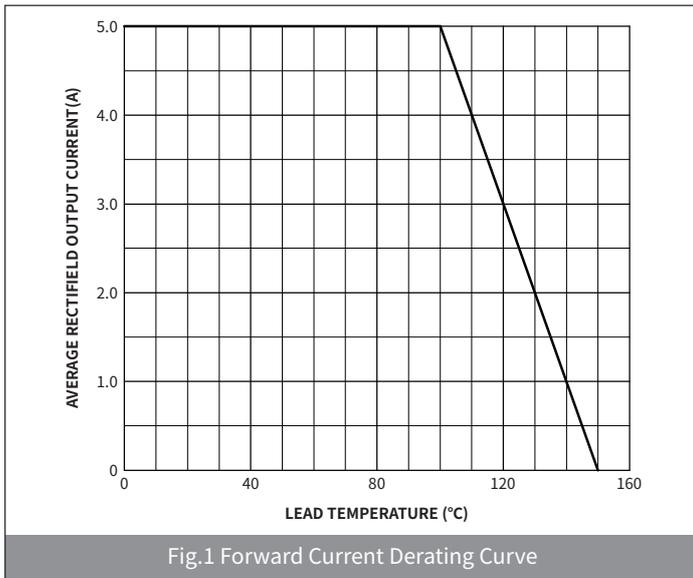
● Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS510X
Device marking code			SS510X
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	100
Maximum RMS Voltage	V_{RMS}	V	70
Maximum DC blocking Voltage	V_{DC}	V	100
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load, TL (Fig.1)	$I_{F(AV)}$	A	5
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	120
Storage temperature	T_{stg}	°C	-65 ~+150
Junction temperature	T_j	°C	-65 ~+150
Typical thermal resistance	$R_{\theta J-L}$	°C /W	10

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	SS510X
Maximum instantaneous forward voltage	$I_F=5.0A$	V_F	V	0.85
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^\circ C$	I_{R1}	mA	0.02
	$V_R=V_{DC}, T_A=100^\circ C$	I_{R2}		2
Typical junction capacitance	4.0V DC, 1MHz	C_J	pF	380

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



SS510X

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	100000	11"

● 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