

SMC Surface Mount Schottky Barrier Rectifier

● Features

- For surface mounted applications
- High forward surge current capability
- Low power loss,high efficiency
- Metal silicon junction, majority carrier conduction
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Reverse Voltage
40-100 V
Forward Current
5 Ampere

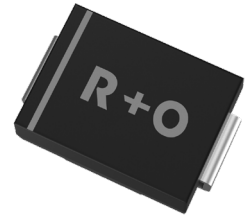
● Applications

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

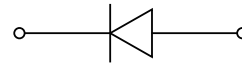
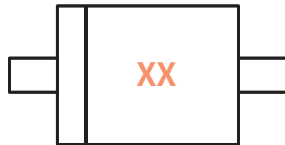
● Mechanical Data

- Case: DO-214AB(SMC)
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-214AB(SMC)



● Function Diagram



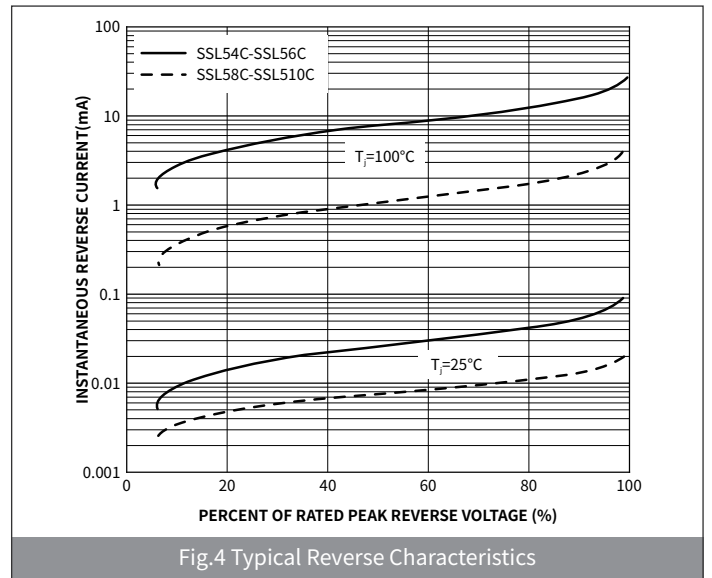
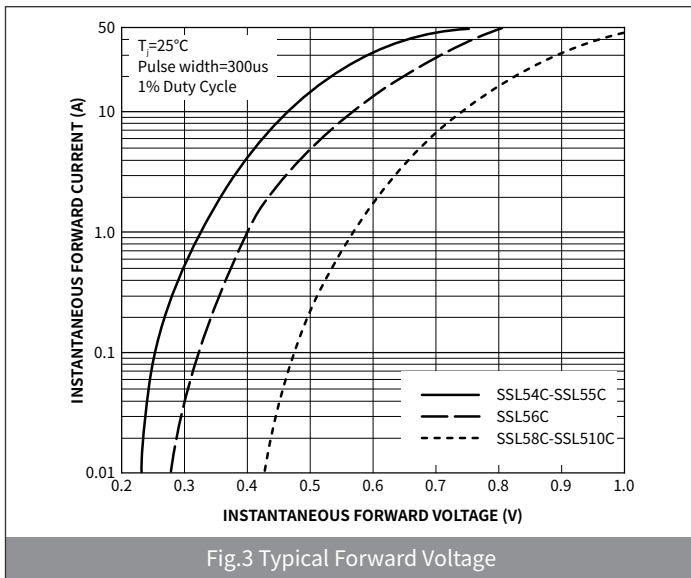
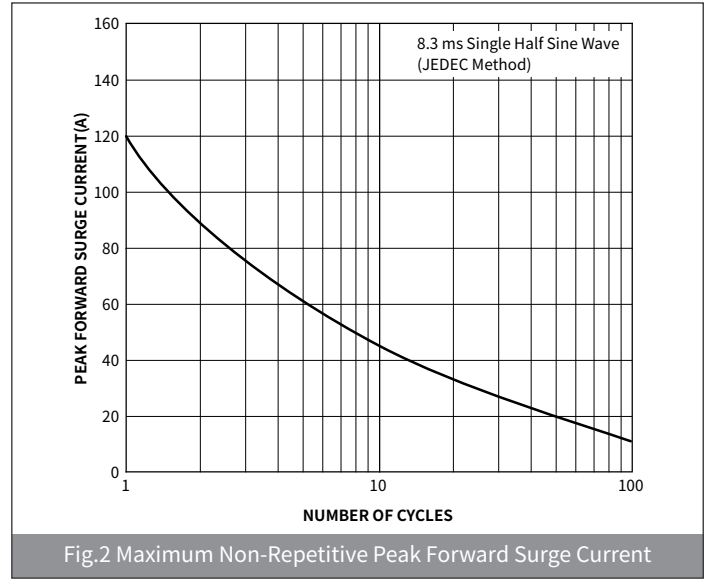
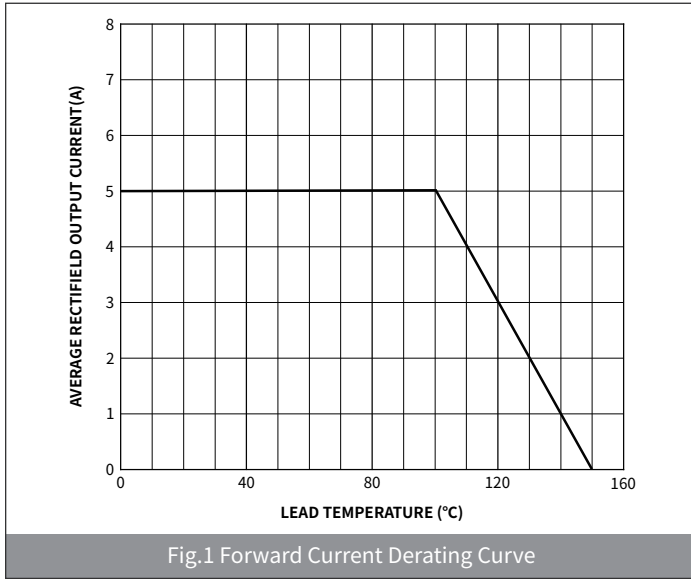
● Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SSL54C	SSL545C	SSL55C	SSL56C	SSL58C	SSL510C
Device marking code			SSL54C	SSL545C	SSL55C	SSL56C	SSL58C	SSL510C
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	40	45	50	60	80	100
Maximum RMS Voltage	V_{RMS}	V	28	32	35	42	56	70
Maximum DC blocking Voltage	V_{DC}	V	40	45	50	60	80	100
Maximum Average Forward Rectified Current @60Hz sine wave, Resistance load,TL (Fig.1)	$I_{F(AV)}$	A	5.0					
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	120					
Storage temperature	T_{stg}	°C	-55 ~ +150					
Junction temperature	T_j	°C	-55 ~ +150					
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	47					
	$R_{\theta J-L}$	°C /W	13					

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	SSL54C	SSL545C	SSL55C	SSL56C	SSL58C	SSL510C
Maximum instantaneous forward voltage	$I_F=5.0A$	V_F	V	0.48			0.55	0.70	
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^\circ C$	I_{R1}	mA	0.5				0.2	
	$V_R=V_{DC}, T_A=100^\circ C$	I_{R2}		50				20	

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



SSL54C THRU SSL510C

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SMC	R3	0.257	3000	6000	48000	13"

● Package Outline Dimensions (SMC/DO-214AB)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.85	3.27	0.112	0.129
B	6.60	7.11	0.261	0.281
C	5.59	6.22	0.221	0.246
D	1.99	2.61	0.078	0.103
E	0.76	1.52	0.030	0.060
F	-	0.20	-	0.008
G	7.75	8.13	0.306	0.321
H	0.15	0.31	0.006	0.012

● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	3.82	-	0.151	-
J	3.03	-	0.120	-
K	-	3.84	-	0.152

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