

## SMC Surface Mount Schottky Barrier Rectifier

### ● Features

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

**Reverse Voltage**  
20-100 V  
**Forward Current**  
8 Ampere

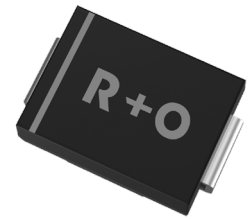
### ● Applications

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

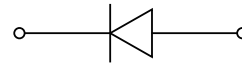
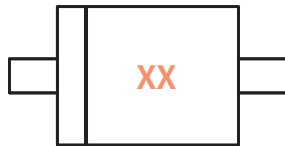
### ● Mechanical Data

- 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



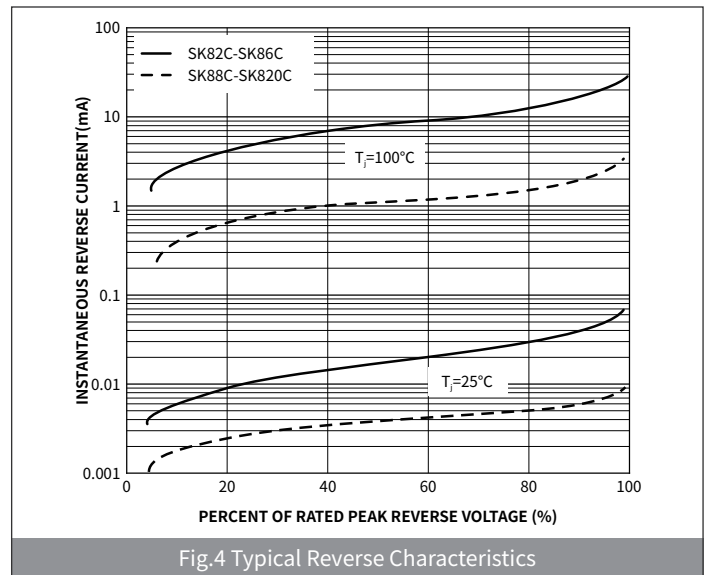
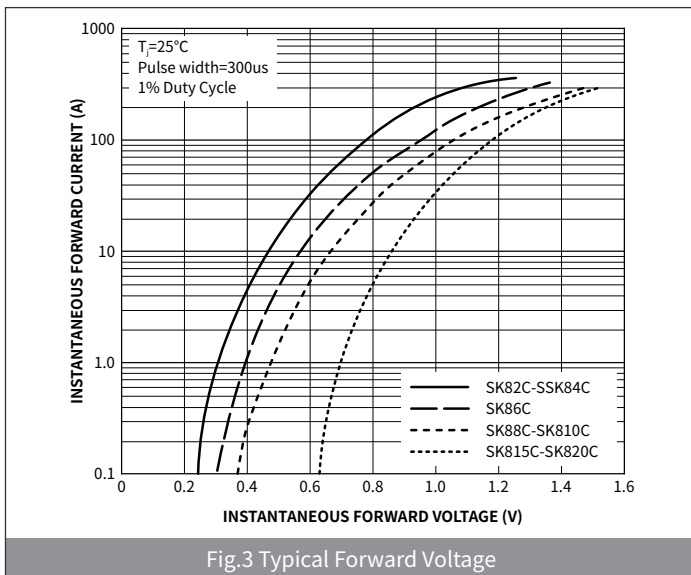
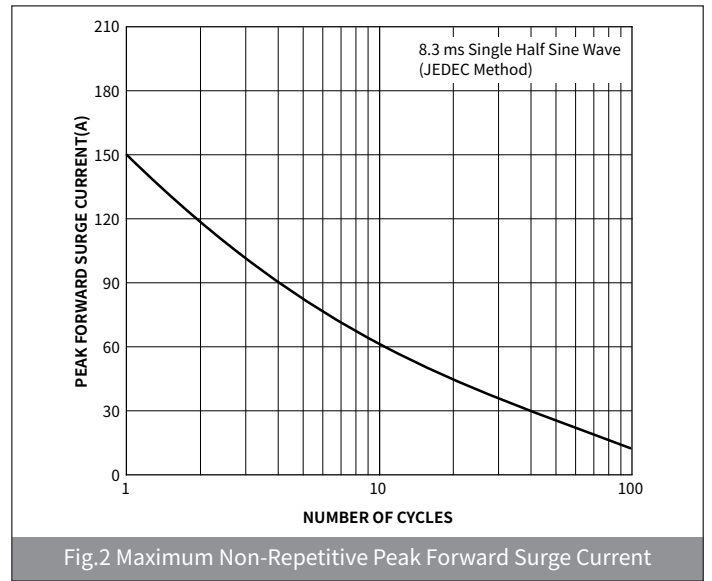
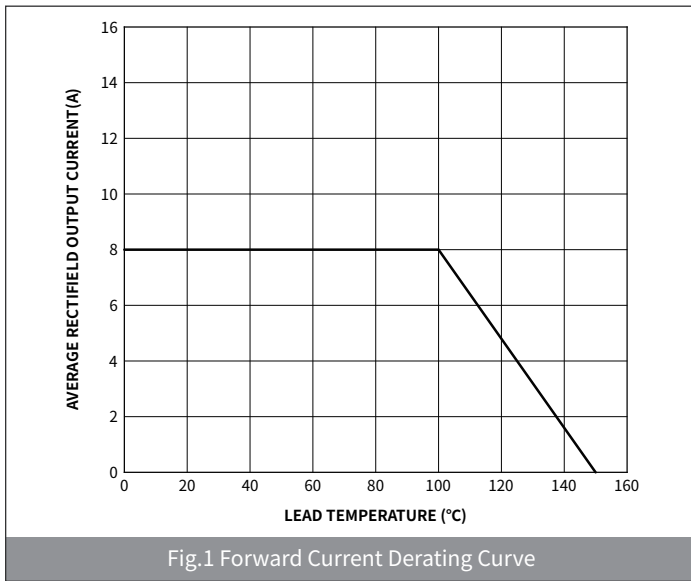
### ● Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SK82C	SK84C	SK86C	SK88C	SK810C	SK815C	SK820C
Device marking code			SK82C	SK84C	SK86C	SK88C	SK810C	SK815C	SK820C
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	V	20	40	60	80	100	150	200
Maximum RMS Voltage	$V_{RMS}$	V	14	28	42	56	70	105	140
Maximum DC blocking Voltage	$V_{DC}$	V	20	40	60	80	100	150	200
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load, TL (Fig.1)	$I_{F(AV)}$	A	8.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	$I_{FSM}$	A	150						
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	47						
	$R_{\theta J-L}$	°C /W	14						

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	SK82C	SK84C	SK86C	SK88C	SK810C	SK815C	SK820C
Maximum instantaneous forward voltage	$I_F=8.0A$	$V_F$	V	0.55	0.70	0.85	0.95			
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^\circ C$	$I_{R1}$	mA	0.5			0.05			
	$V_R=V_{DC}, T_A=100^\circ C$	$I_{R2}$		50			10			
Typical junction capacitance	4.0V DC, 1MHz	$C_J$	pF	900			600			

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



## ● 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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