

Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- High forward surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and car lighting.

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

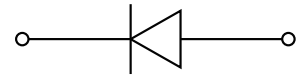
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SK102C	SK104C	SK1045C	SK106C	SK108C	SK1010C	SK1015C	SK1020C
Device marking code			SK102C	SK104C	SK1045C	SK106C	SK108C	SK1010C	SK1015C	SK1020C
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	20	40	45	60	80	100	150	200
Maximum RMS Voltage	V_{RMS}	V	14	28	31.5	42	56	70	105	140
Maximum DC blocking Voltage	V_{DC}	V	20	40	45	60	80	100	150	200
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load, TL (Fig.1)	$I_{F(AV)}$	A	10							
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	175							
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	14							

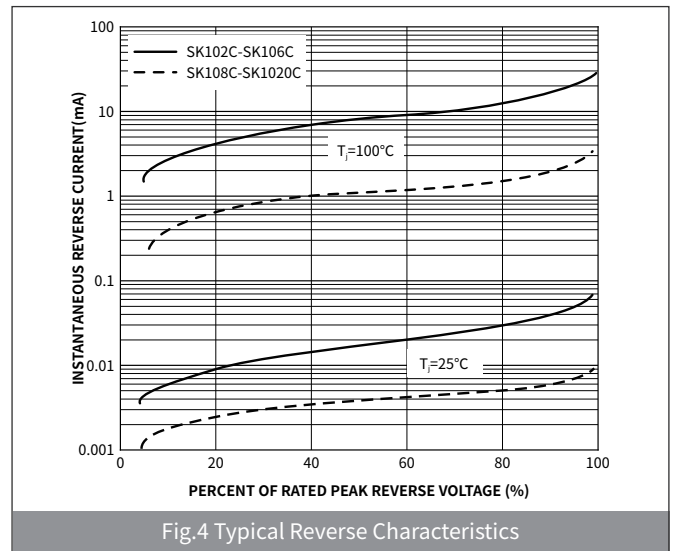
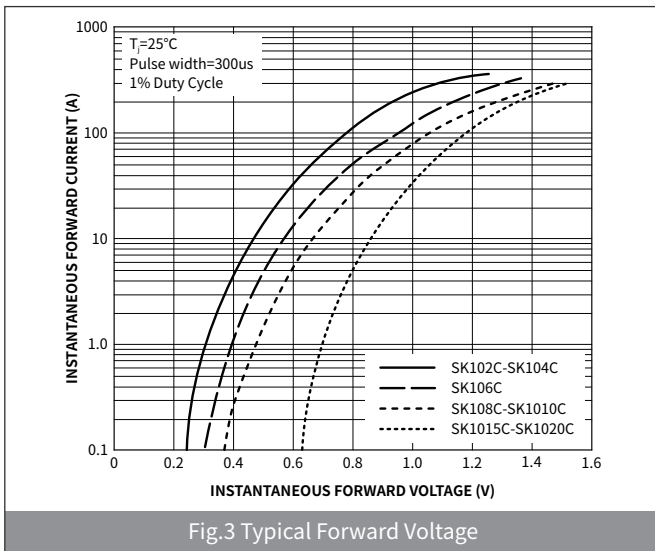
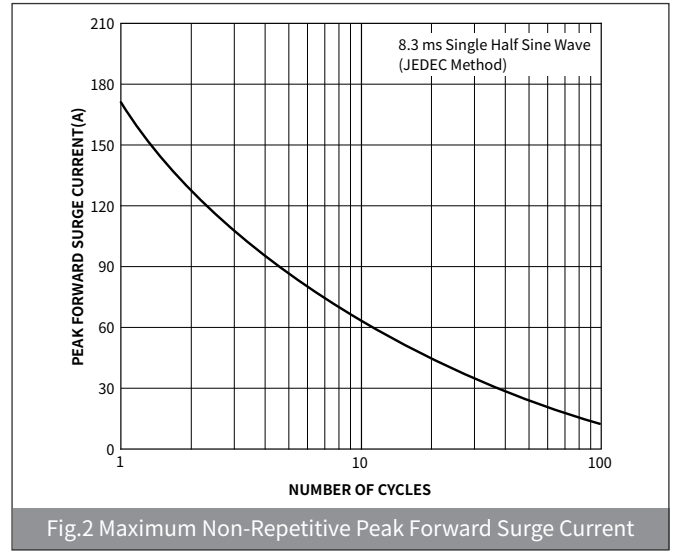
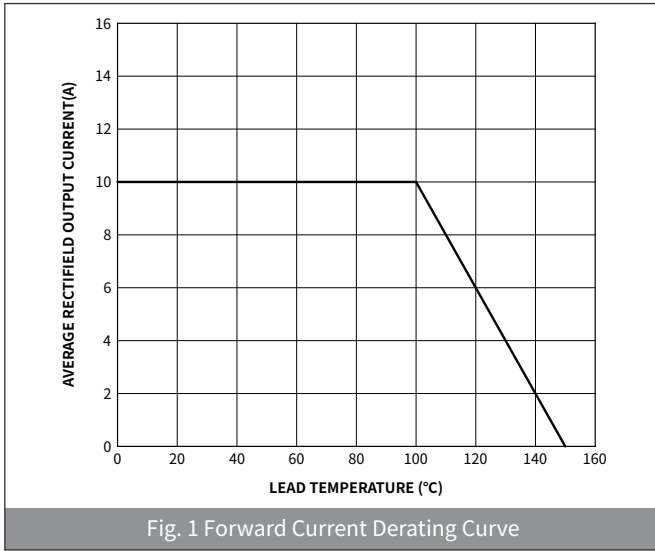
Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	SK102C	SK104C	SK1045C	SK106C	SK108C	SK1010C	SK1015C	SK1020C
Maximum instantaneous forward voltage	$I_F=10A$	V_F	V	0.55			0.70	0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage	$V_{RM}=V_{DC}$	I_R	mA	0.5				0.05			
				50				10			
Typical junction capacitance	4.0V DC, 1MHz	C_j	pF	500							

DO-214AB(SMC)



▶ 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	/	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