

Features

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

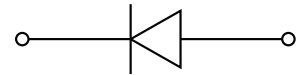
Applications

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)



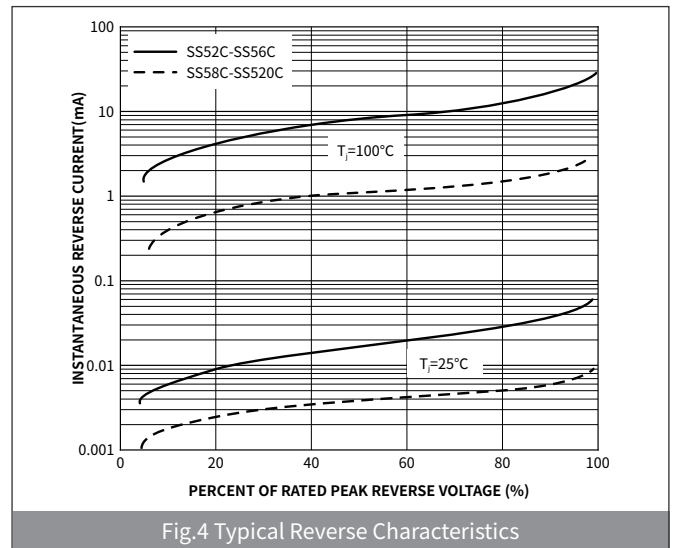
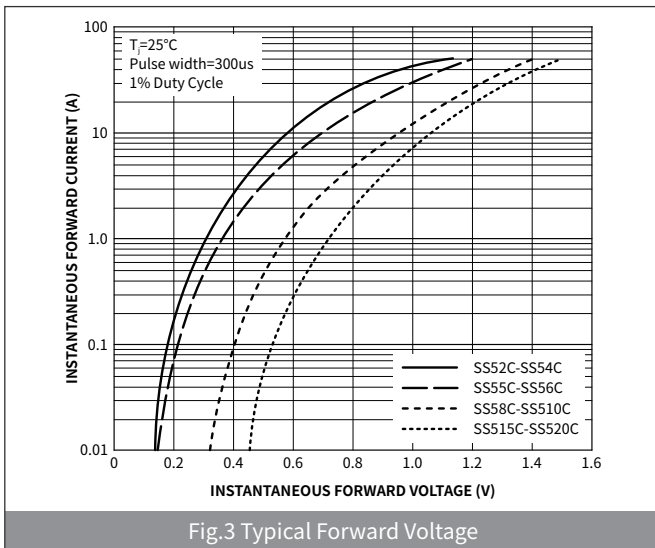
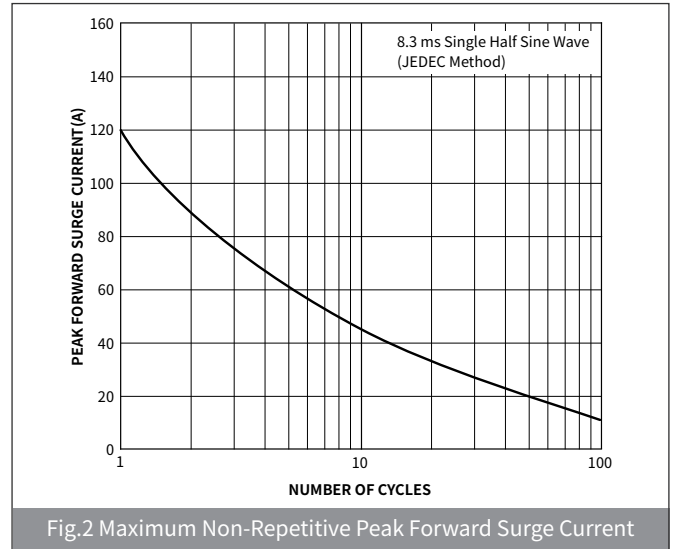
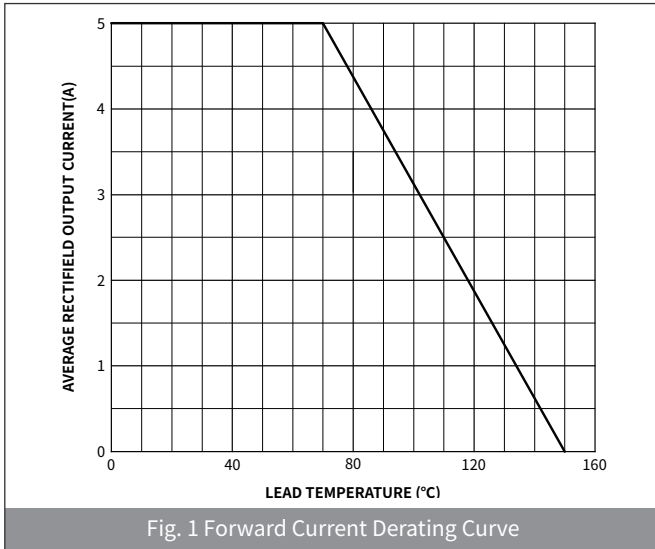
Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS52C	SS53C	SS54C	SS55C	SS56C	SS58C	SS510C	SS515C	SS520C
Device marking code			SS52C	SS53C	SS54C	SS55C	SS56C	SS58C	SS510C	SS515C	SS520C
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	5.0								
Forward Surge Current (Nonrepetitive) @60Hz Half-sine wave, 1 cycle, T=25°C	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	45								
	$R_{\theta J-L}$	°C /W	15								

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	SS52C	SS53C	SS54C	SS55C	SS56C	SS58C	SS510C	SS515C	SS520C
Maximum instantaneous forward voltage	$I_F=5.0A$	V_F	V	0.55			0.68		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage	$V_{RM}=V_{DC}$	I_R	mA	0.15					0.05			
				50					10			
Typical junction capacitance	4.0V DC, 1MHz	C_j	pF	550				450				

► **Ratings And Characteristics Curves** ($T_a=25^{\circ}\text{C}$ 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