

### Features

- Low profile package
- Ideal for automated placement
- 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, freewheeling, DC/DC converters, and polarity protection applications.

### 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

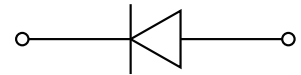
### Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520	
Device marking code			SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520	
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	
Average rectified output current @60Hz sinewave, Resistance load, TL (Fig.1)	$I_{F(AV)}$	A	5									
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 ~ +125					-55 ~ +150				
Typical Thermal Resistance	$R_{\theta J-A}$	°C/W	60									
	$R_{\theta J-L}$	°C/W	22									

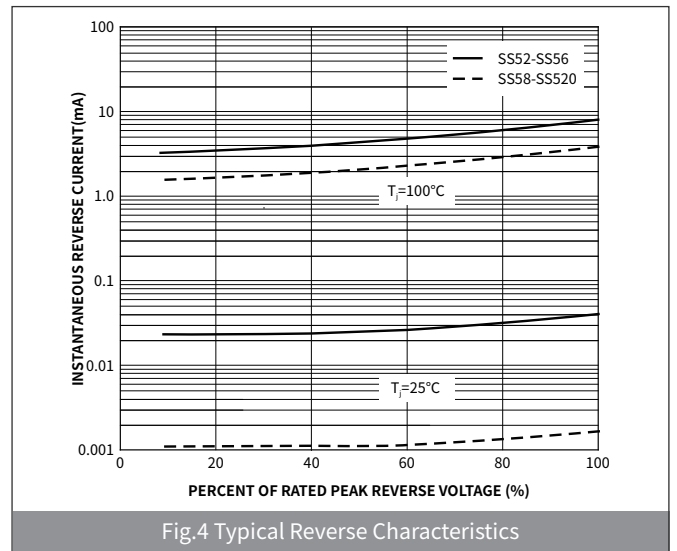
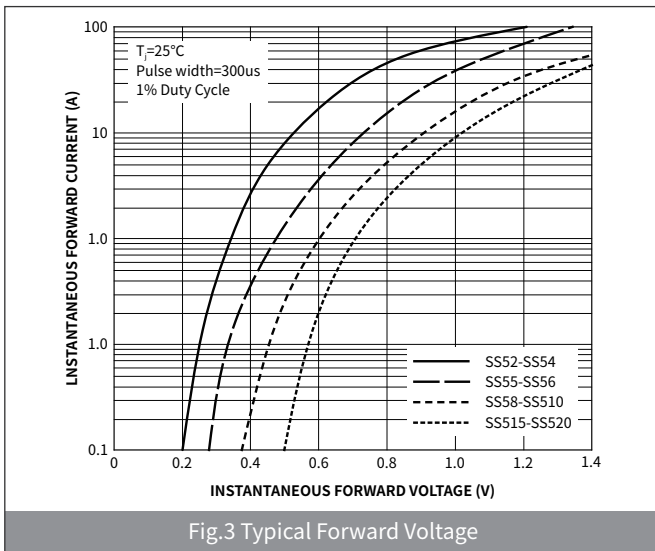
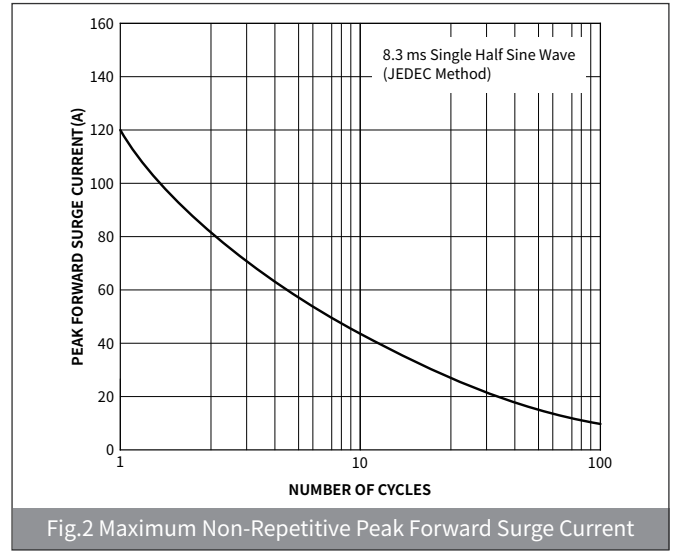
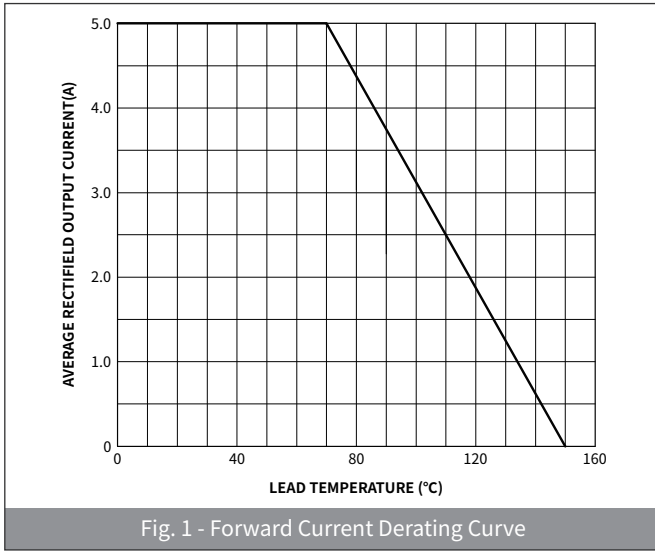
### Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520
Maximum instantaneous forward voltage	$I_F=5.0A$	$V_F$	V	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage	$V_{RM}=V_{RRM}$	$I_R$	mA	0.2					0.05			
				10					5			
Typical junction capacitance	4.0V DC, 1MHz	$C_j$	pF	200								

### DO-214AC(SMA)



► **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
SMA	R2	0.07	5000	10000	80000	11"
SMA	R3	0.07	7500	15000	120000	13"

### ▶ 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