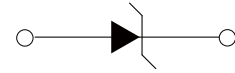


## FEATURES

- | Low Power Loss High Efficiency
- | Ideal For Automated Placement
- | Guard Ring For Over-voltage Protection
- | High Surge Current Capability



DO-214AC(SMA)



Schematic Symbol

## MECHANICAL DATA

- | Polarity: Color Band Denotes Cathode End
- | Mounting Position: Any

## APPROVALS

<b>RoHS</b>	Compliance with 2011/65/EU
<b>HF</b>	Compliance with IEC61249-2-21:2003

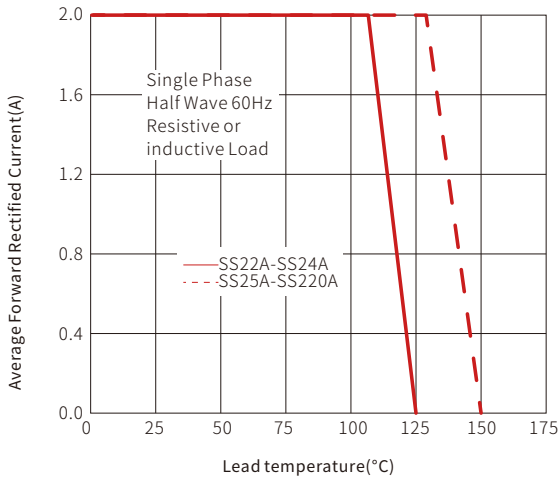
## ABSOLUTE MAXIMUM RATINGS ( $T_A=25^{\circ}\text{C}$ )

Parameter	Symbol	SS22A	SS23A	SS24A	SS25A	SS26A	SS28A	SS210A	SS215A	SS220A	Unit	
Marking		SS22	SS23	SS24	SS25	SS26	SS28	SS210	SS215	SS220		
Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	V	
Reverse Voltage, total RMS Value	$V_{RMS}$	14	21	28	35	42	56	70	105	140	V	
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	150	200	V	
Maximum Average Forward Rectified Current	$I_{F(AV)}^{1)}$	2.0									A	
Surge Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load Per Diode	$I_{FSM}$	50									A	
Maximum Instantaneous Forward Voltage $I_F=2A, T_A=25^{\circ}\text{C}$	$V_F$	0.45	0.55	0.70			0.85			V		
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}\text{C}$	0.2						0.05			mA	
	$T_A=100^{\circ}\text{C}$	10						5			mA	
Typical Junction Capacitance 4.0V,1MHz	$C_J$	220				180					V/ $\mu\text{s}$	
Typical Thermal Resistance Note 1	$R_{\theta JA}$	88										$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	$T_J$	-55 to +125										$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150										$^{\circ}\text{C}$

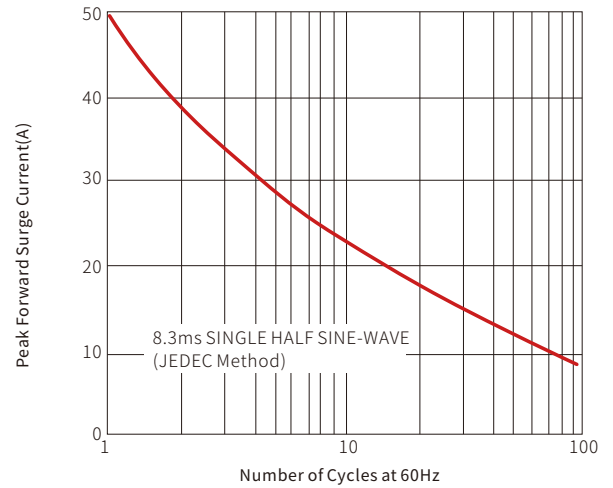
Note1): Mounted on PCB with 5.0x5.0mm copper pads.

# CHARACTERISTIC CURVES

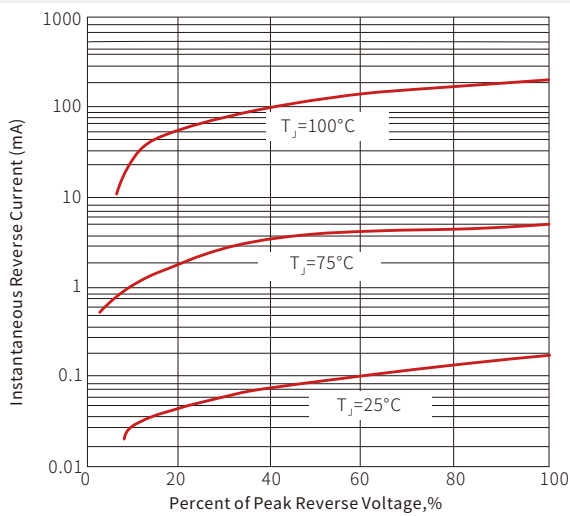
**Fig. 1- Forward Current Derating Curve**



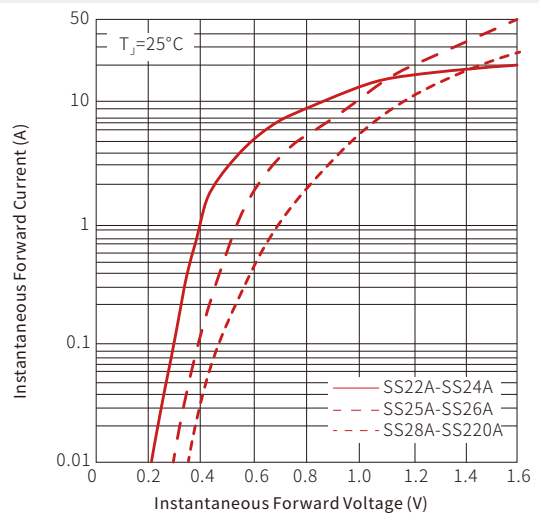
**Fig. 2- Maximum Non-Repetitive Peak Forward Surge Current**

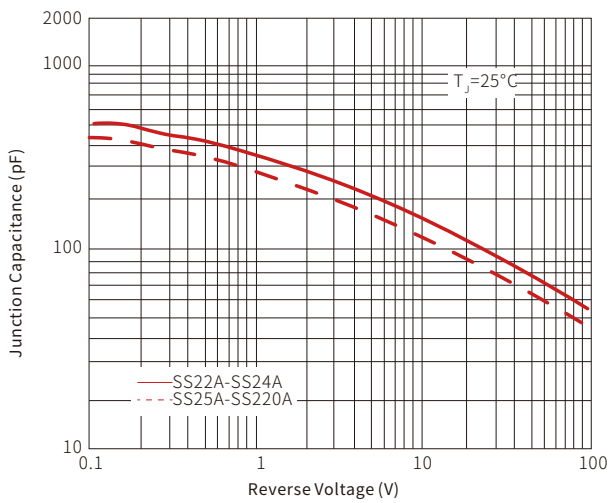
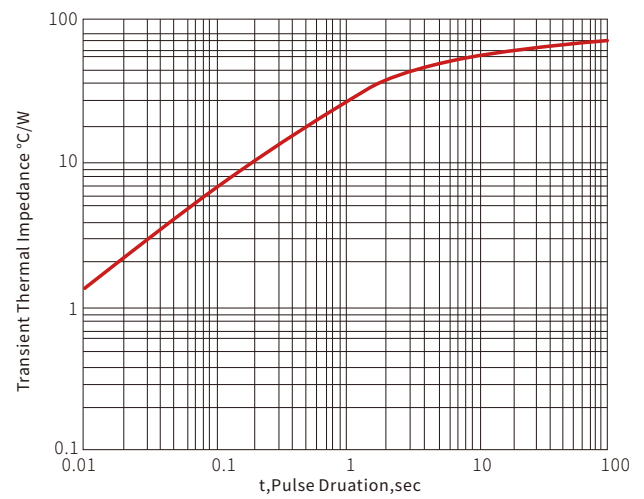


**Fig. 3- Typical Reverse Characteristics**



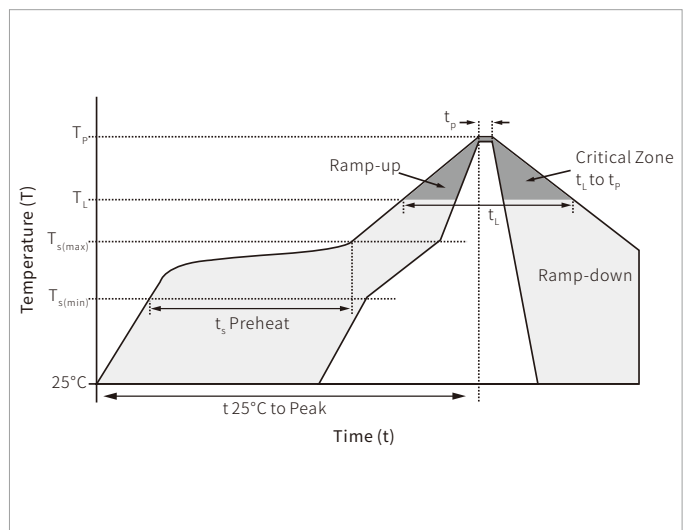
**Fig. 4- Typical Instantaneous Forward Characteristics**



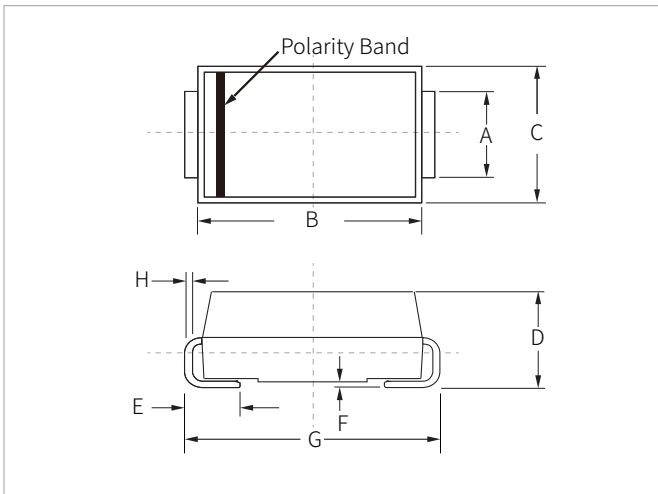
**Fig. 5-Typical Junction Capacitance**

**Fig. 6-Typical Transient Thermal Impedance**


## SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ( $T_{s(\text{min})}$ )	150 $^\circ\text{C}$
	Temperature Max ( $T_{s(\text{max})}$ )	200 $^\circ\text{C}$
	Time (min to max) ( $t_s$ )	60 – 180 secs
Average ramp up rate (Liquidus Temp ( $T_L$ ) to peak)		3 $^\circ\text{C}/\text{second}$ max
$T_{s(\text{max})}$ to $T_L$ - Ramp-up Rate		3 $^\circ\text{C}/\text{second}$ max
Reflow	Temperature ( $T_L$ ) (Liquidus)	217 $^\circ\text{C}$
	Time (min to max) ( $t_r$ )	60 – 150 seconds
Peak Temperature ( $T_p$ )		260 $^\circ\text{C}$
Time within 5 $^\circ\text{C}$ of actual peak Temperature ( $t_p$ )		20 – 40 seconds
Ramp-down Rate		6 $^\circ\text{C}/\text{second}$ max
Time 25 $^\circ\text{C}$ to peak Temperature ( $T_p$ )		8 minutes max.
Do not exceed		260 $^\circ\text{C}$

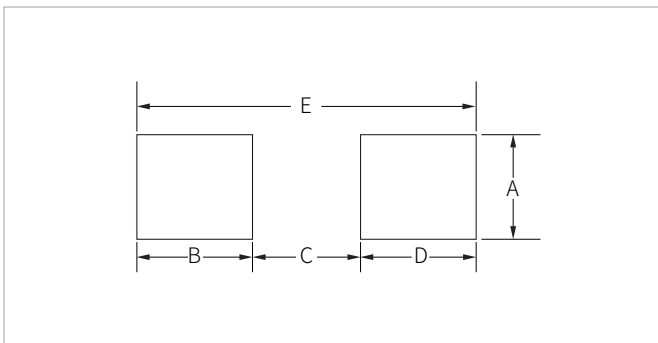


## DO-214AC(SMA) PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.20	1.60	0.047	0.063
B	4.20	4.60	0.165	0.181
C	2.40	2.80	0.094	0.110
D	2.00	2.40	0.079	0.094
E	0.76	1.52	0.030	0.060
F	0.02	0.20	0.001	0.008
G	4.85	5.25	0.191	0.207
H	0.15	0.30	0.006	0.012

## RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.63	-	0.064	-
B	1.45	-	0.057	-
C	-	2.80	-	0.090
D	1.45	-	0.057	-
E	5.28REF		0.208REF	

## ORDERING INFORMATION

Part Number	Size	QTY/Reel	Reel Size
SS22A-220A	DO-214AC(SMA)	5000PCS	13"

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Wechat

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