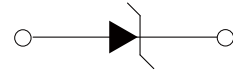


FEATURES

- | 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

RoHS	Compliance with 2011/65/EU
HF	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/ μs	
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

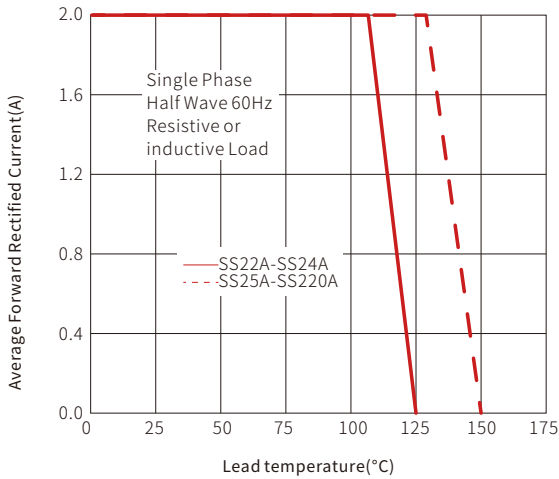


Fig. 2- Maximum Non-Repetitive Peak Forward Surge Current

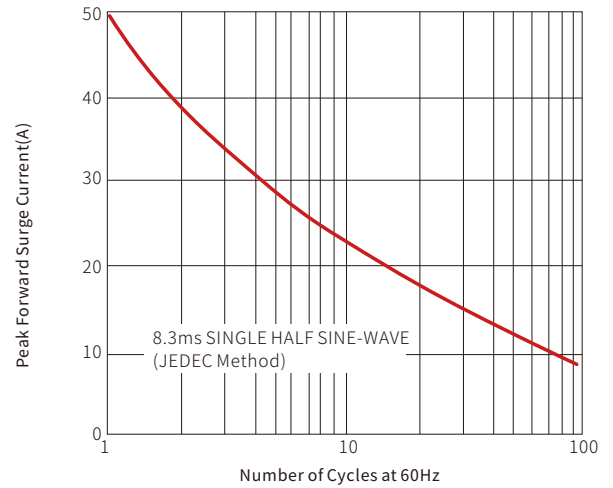


Fig. 3- Typical Reverse Characteristics

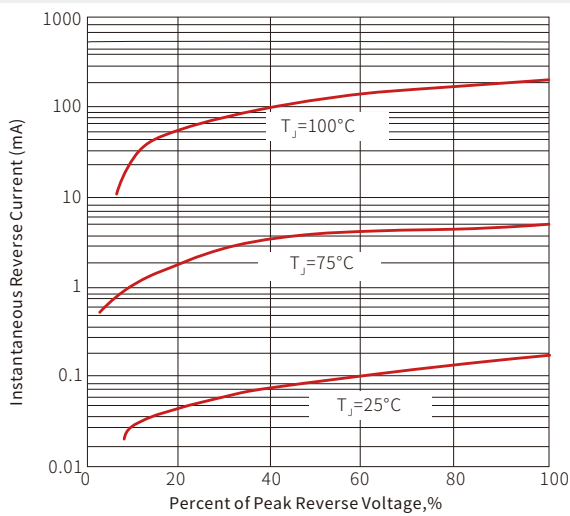


Fig. 4- Typical Instantaneous Forward Characteristics

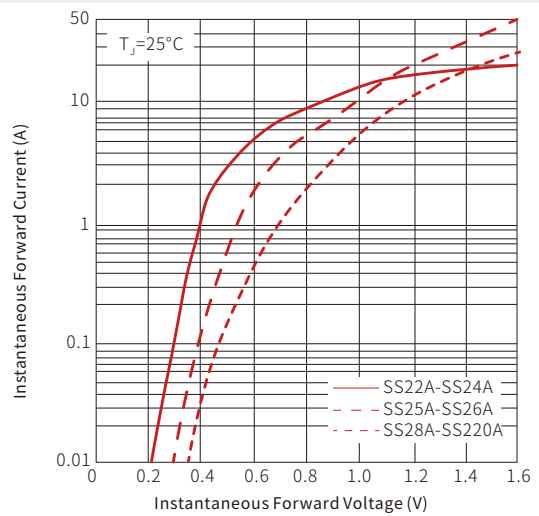
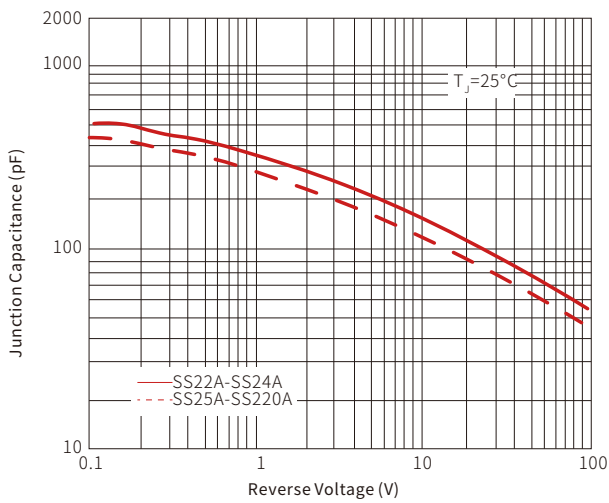
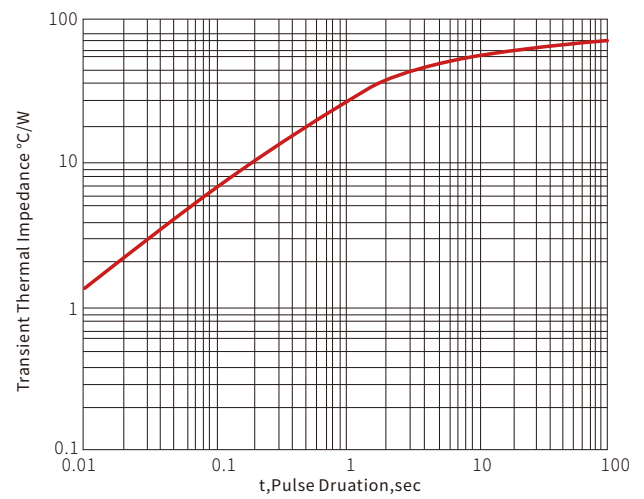
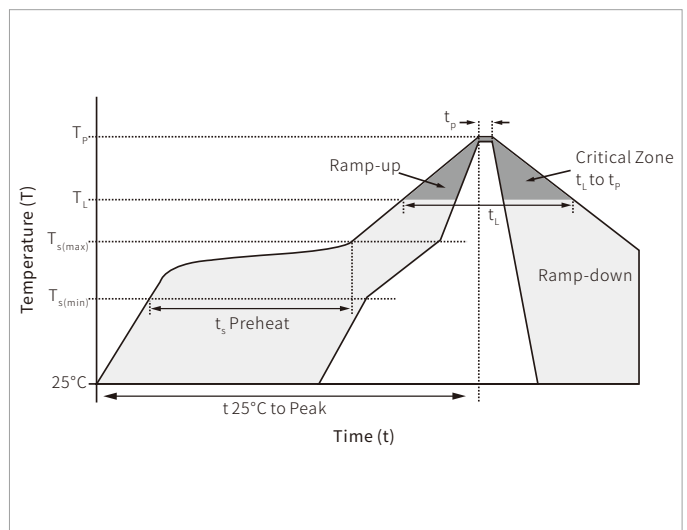


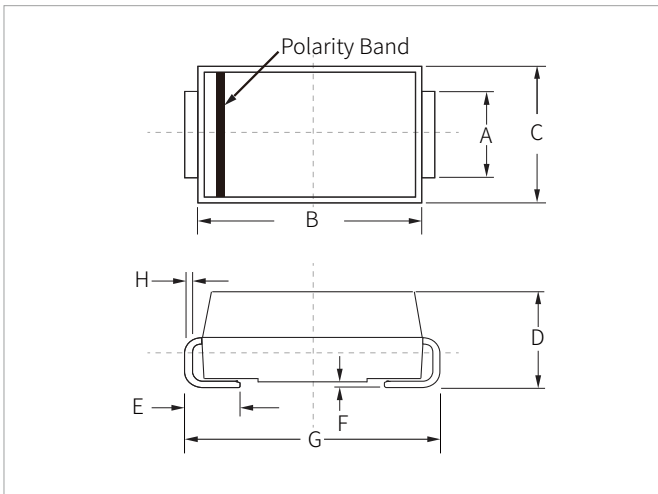
Fig. 5-Typical Junction Capacitance

Fig. 6-Typical Transient Thermal Impedance


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(\min)}$)	150 $^\circ\text{C}$
	Temperature Max ($T_{s(\max)}$)	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
$T_{s(\max)}$ 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 $^\circ\text{C}$

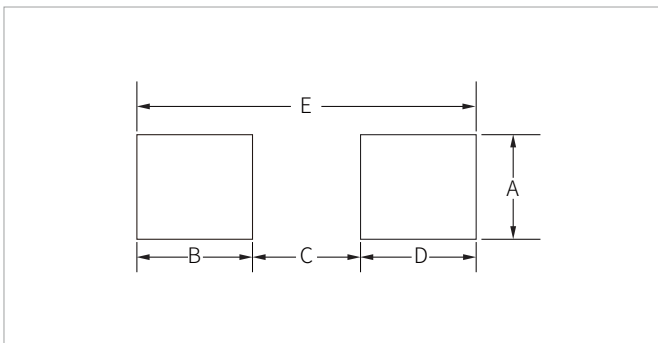


DO-214AC(SMA) PACKAGE INFORMATION



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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