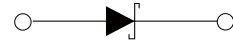


## FEATURES

- | Low power loss high efficiency
- | Ideal for automated placement
- | Guard ring for over-voltage protection
- | High surge current capability
- | Meet AEC-Q101 Requirements



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<sub>A</sub> = 25°C)

Parameter	Symbol	SS 22AQ	SS 23AQ	SS 24AQ	SS 25AQ	SS 26AQ	SS 28AQ	SS 210AQ	SS 215AQ	SS 220AQ	Unit
Marking		SS22	SS23	SS24	SS25	SS26	SS28	SS210	SS215	SS220	
Repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	V
Reverse voltage, total RMS Value	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current	I <sub>o</sub>	2.0									A
Surge (Non-repetitive) Forward Current @60Hz Half-sine wave, 1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	50									A
Maximum instantaneous forward voltage drop per diode I <sub>FM</sub> =2.0A	V <sub>F</sub>	0.55			0.70		0.85		0.95		V
Maximum DC reverse current at rated DC blocking voltage	T <sub>A</sub> = 25°C	0.50					0.10				mA
	T <sub>A</sub> = 100°C	10					5				mA
Thermal Resistance <sup>(1)</sup>	R <sub>θJ-A</sub>	75									°C/W
	R <sub>θJ-L</sub>	17									°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +150					-55 to +175				°C
Storage temperature range	T <sub>STG</sub>	-55 to +150									°C

### Note

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

# CHARACTERISTIC CURVES

Fig. 1- Forward Current Derating Curve

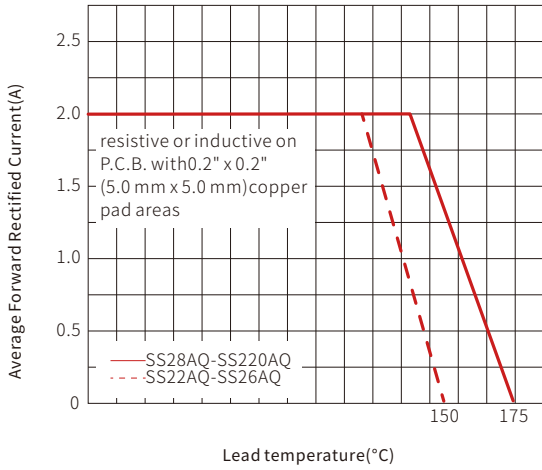


Fig. 2- Maximum Non-Repetitive Peak Forward Surge Current

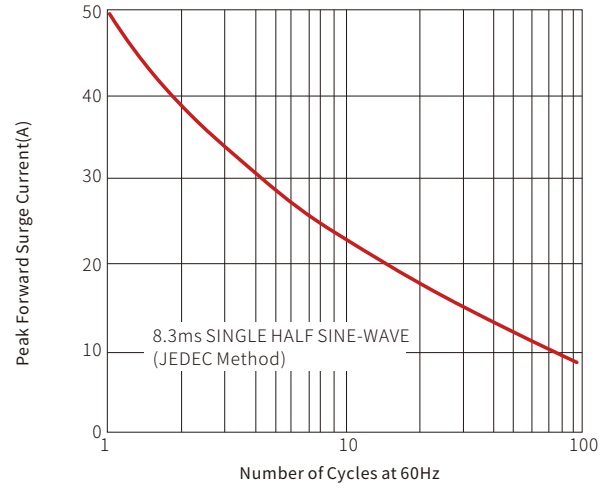


Fig. 3- Typical Reverse Characteristics

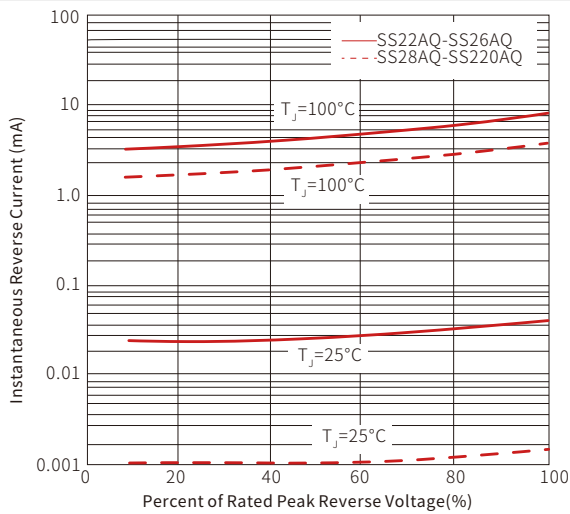
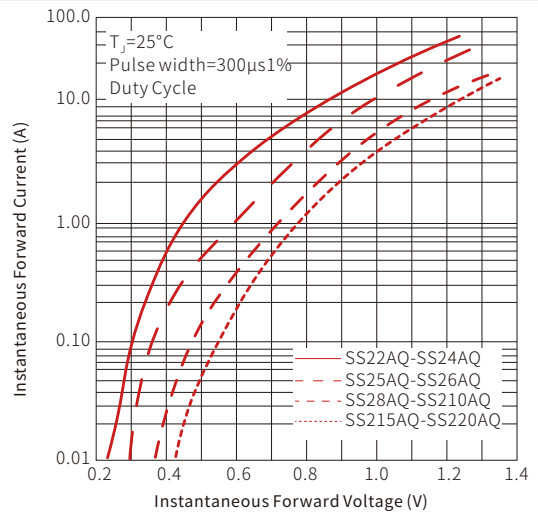
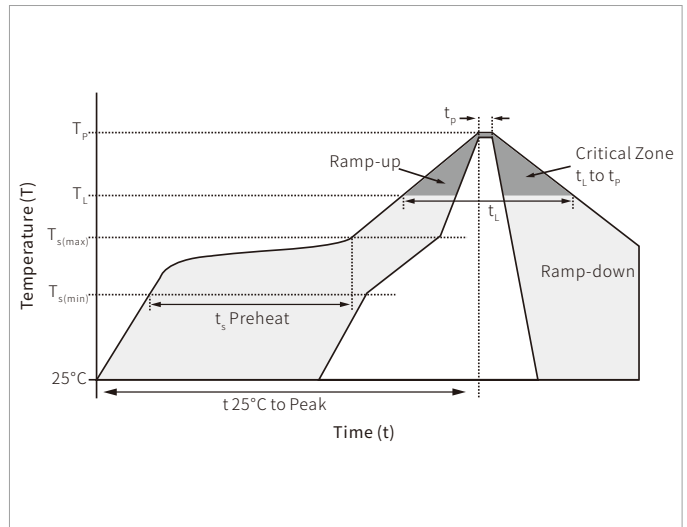


Fig. 4- Typical Instantaneous Forward Characteristics

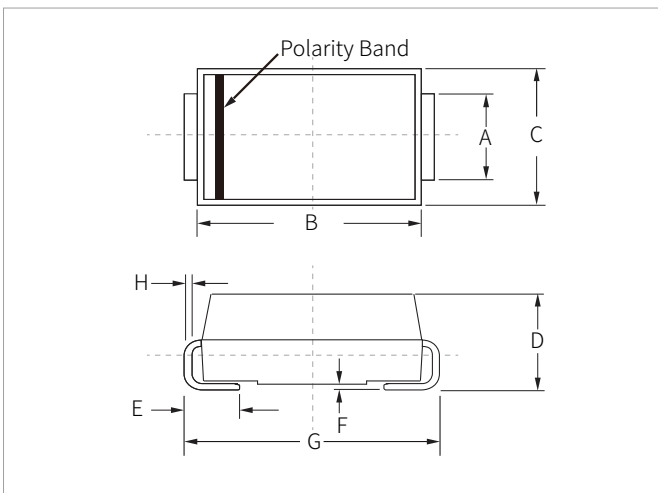


## SOLDERING PARAMETERS

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

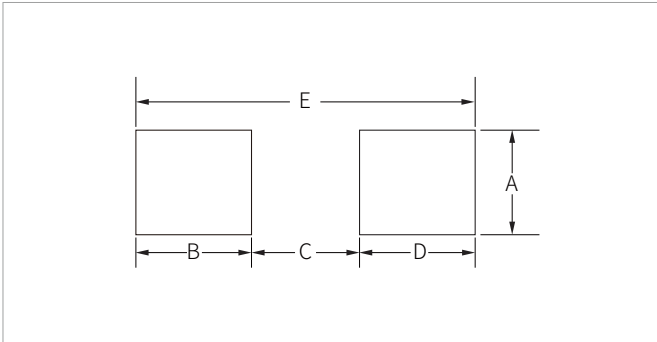


## DO-214AC(SMA) PACKAGE INFORMATION



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
SS22AQ-SS220AQ	DO-214AC(SMA)	5000PCS	13"

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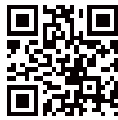
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Website



Wechat

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