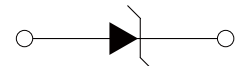


## FEATURES

- | Low reverse leakage
- | High forward surge capability
- | High reliability
- | Meet AEC-Q101 Requirements



SMAF



Schematic Symbol

## MECHANICAL DATA

- | Case:SMAF Molded plastic
- | UL 94V-0 rate flame retardant

## 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 22AFQ	SS 24AFQ	SS 26AFQ	SS 210AFQ	SS 215AFQ	SS 220AFQ	Unit
Marking		SS22	SS24	SS26	SS210	SS215	SS220	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	40	60	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	28	42	70	105	140	V
Maximum DS Blocking Voltage	V <sub>DC</sub>	20	40	60	100	150	200	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	2.0						A
Non-Repetitive Peak Forward Surge Current 8.3 ms Singlehalf Sine-Wave	I <sub>FSM</sub>	50						A
Maximum Forward Voltage @ I <sub>F</sub> =2.0A	V <sub>F</sub>	0.55		0.70	0.85	0.92	0.95	V
Maximum Reverse Current @V <sub>DC</sub>	T <sub>A</sub> =25°C	0.5			0.1			mA
	T <sub>A</sub> =100°C	20			10			
Typical Thermal Resistance (Note 1)	R <sub>θJA</sub>	85						°C/W
	R <sub>θJL</sub>	25						
Type Junction Capacitance V <sub>R</sub> =4.0v,f=1MHz	C <sub>J</sub>	180						pF
Operating Junction Range	T <sub>J</sub>	-55 to +125			-55 to +150			°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150						°C

Note1):Thermal Resistance From Junction to Ambient , PCB Mounted.

# CHARACTERISTIC CURVES

Fig. 1- Typical Forward Characteristic

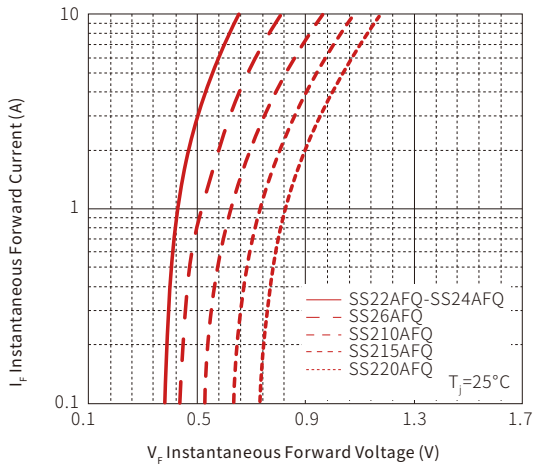


Fig. 2-forward Current Derating Curve

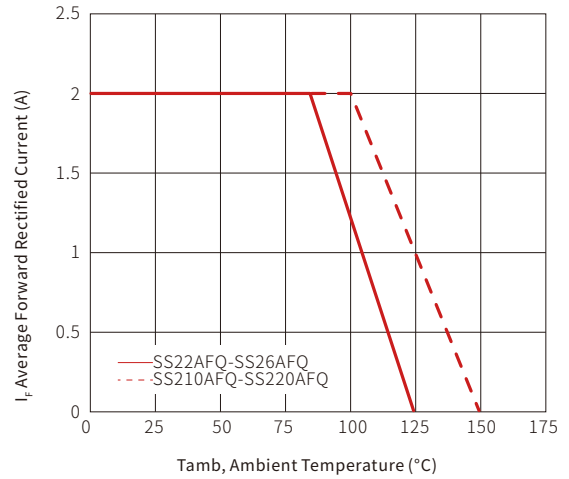


Fig. 3-Maximum Non Repetitive Peak Forward Surge Current

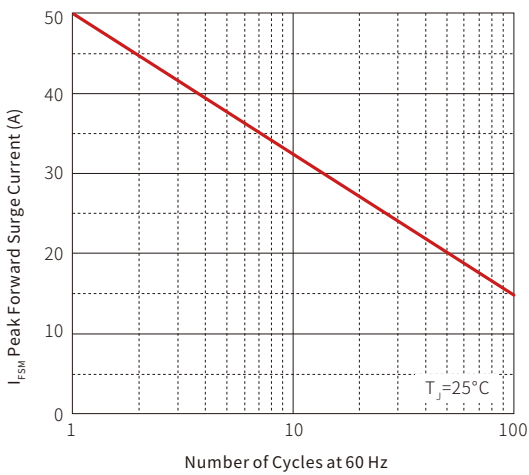
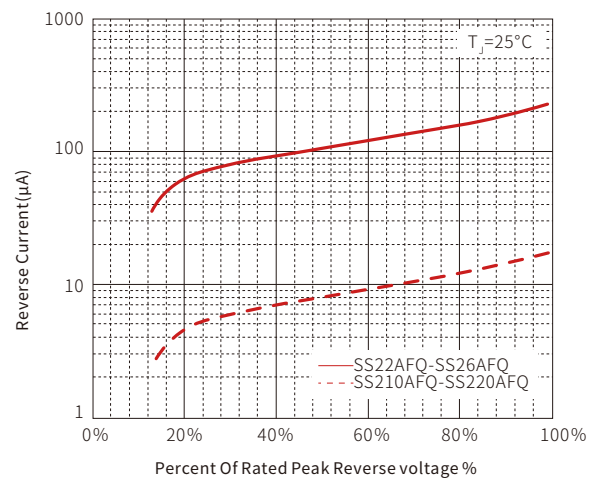
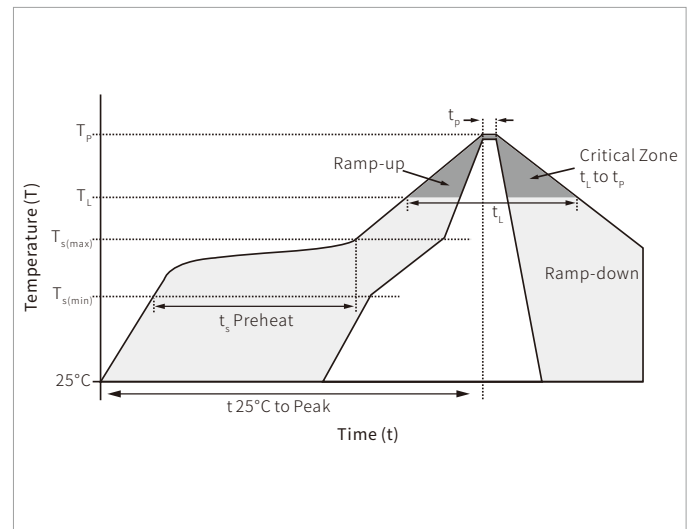


Fig. 4-Typical Reverse Characteristics

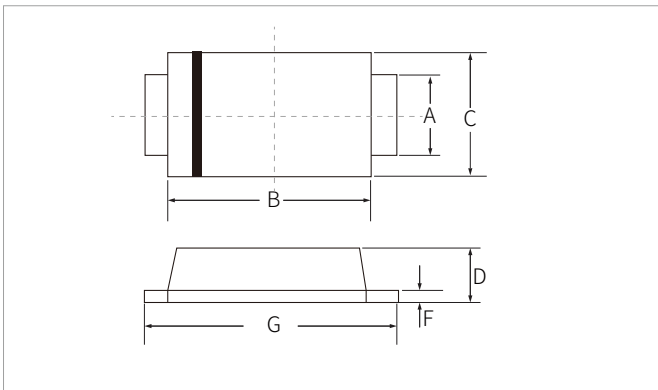


## SOLDERING PARAMETERS

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

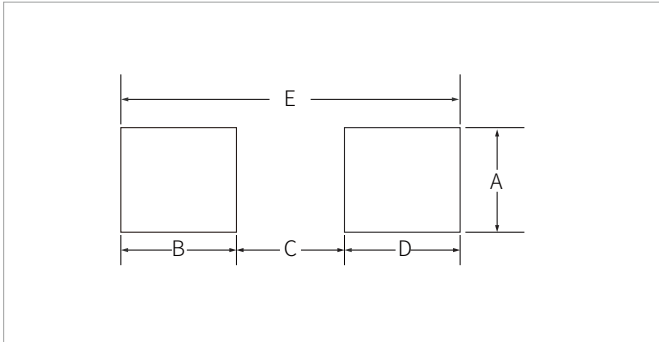


## SMAF PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min	Max	Min	Max
A	1.35	1.45	0.053	0.057
B	3.40	3.80	0.134	0.145
C	2.40	2.80	0.094	0.110
D	0.95	1.45	0.037	0.057
F	0.15	0.22	0.006	0.009
G	4.40	4.80	0.173	0.189

## RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min	Max	Min	Max
A	1.70	-	0.067	-
B	2.50	-	0.098	-
C	-	1.5	-	0.059
D	2.50	-	0.098	-
E	6.50REF		0.256REF	

## ORDERING INFORMATION

Part Number	Package	QTY/Reel	Reel Size
SS22AFQ-220AFQ	SMAF	5000PCS	13"

**Headquarters**

No.3387 Shendu Road  
Pujiang I&E Park  
Minhang Shanghai China  
201000

**Hotline**

400-021-5756

**Web**

<https://www.semiware.com>

**Sales Center**

Tel: 86-21-3463-7458  
Email: [sales18@semiware.com](mailto:sales18@semiware.com)

**Customer Service**

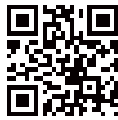
Tel: 86-21-5484-1001  
Email: [sales17@semiware.com](mailto:sales17@semiware.com)

**Technical Support**

Tel: 86-21-3463-7654  
Email: [fae01@semiware.com](mailto:fae01@semiware.com)

**Complaint & Suggestions**

Tel: 86-21-3463-7172  
Ext: 8868  
Email: [cs03@semiware.com](mailto:cs03@semiware.com)

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