



# SS32F THRU SS320F

## Surface Mount Schottky Rectifiers

Reverse Voltage - 20 to 200 V

Forward Current - 3.0A

### Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Simplified outline SMAF and symbol

### MECHANICAL DATA

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 27mg 0.00095oz

### Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	SS32F	SS34F	SS34AF	SS36F	SS38F	SS310F	SS312F	SS315F	SS320F	Units			
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	40	45	60	80	100	120	150	200	V			
Maximum RMS voltage	V <sub>RMS</sub>	14	28	31.5	42	56	70	84	105	140	V			
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	40	45	60	80	100	120	150	200	V			
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	3.0								A				
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	80					70							
Max Instantaneous Forward Voltage at 2 A	V <sub>F</sub>	0.55		0.70			0.85		0.95		V			
Maximum DC Reverse Current at Rated DC Reverse Voltage T <sub>a</sub> = 25°C T <sub>a</sub> = 100°C T <sub>a</sub> = 125°C	I <sub>R</sub>	0.5 5 /			0.3 /			5			mA			
Typical Thermal Resistance <sup>1)</sup>	R <sub>θJA</sub>	55								°C/W				
Operating Junction Temperature Range	T <sub>j</sub>	-55 ~ +125								°C				
Storage Temperature Range	T <sub>stg</sub>	-55 ~ +150								°C				

1) P.C.B. mounted with 0.5 X 0.5" (12.7 X 12.7 mm) copper pad areas.



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**Characteristic Curves** ( $T = 25^\circ\text{C}$  unless otherwise noted)

Fig.1 Forward Current Derating Curve

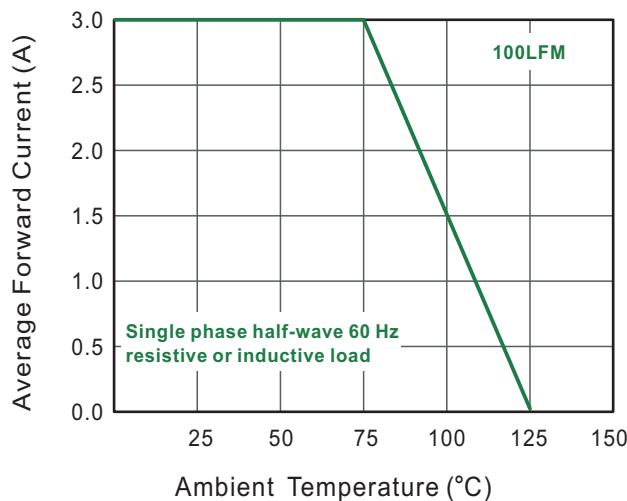


Fig.2 Typical Reverse Characteristics

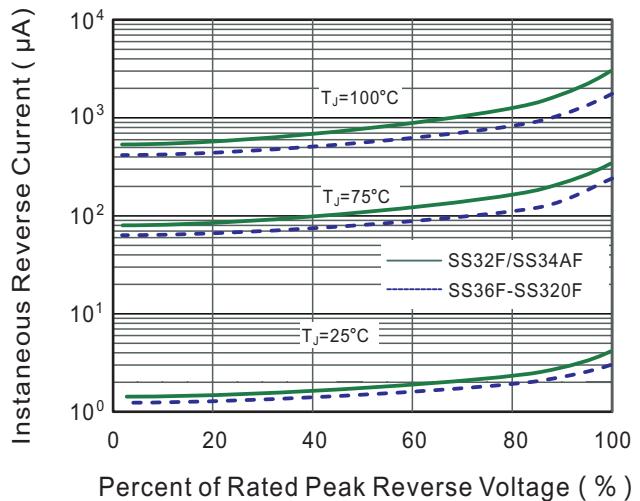


Fig.3 Typical Forward Characteristic

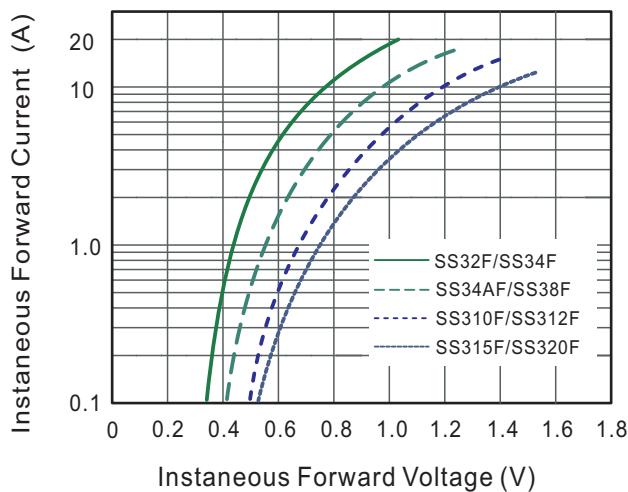
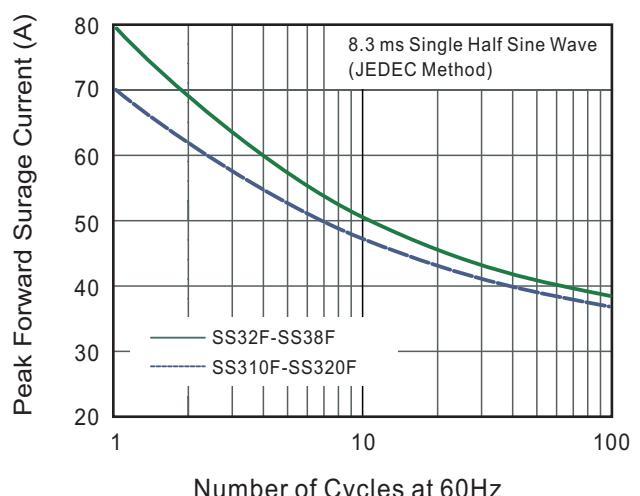


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current





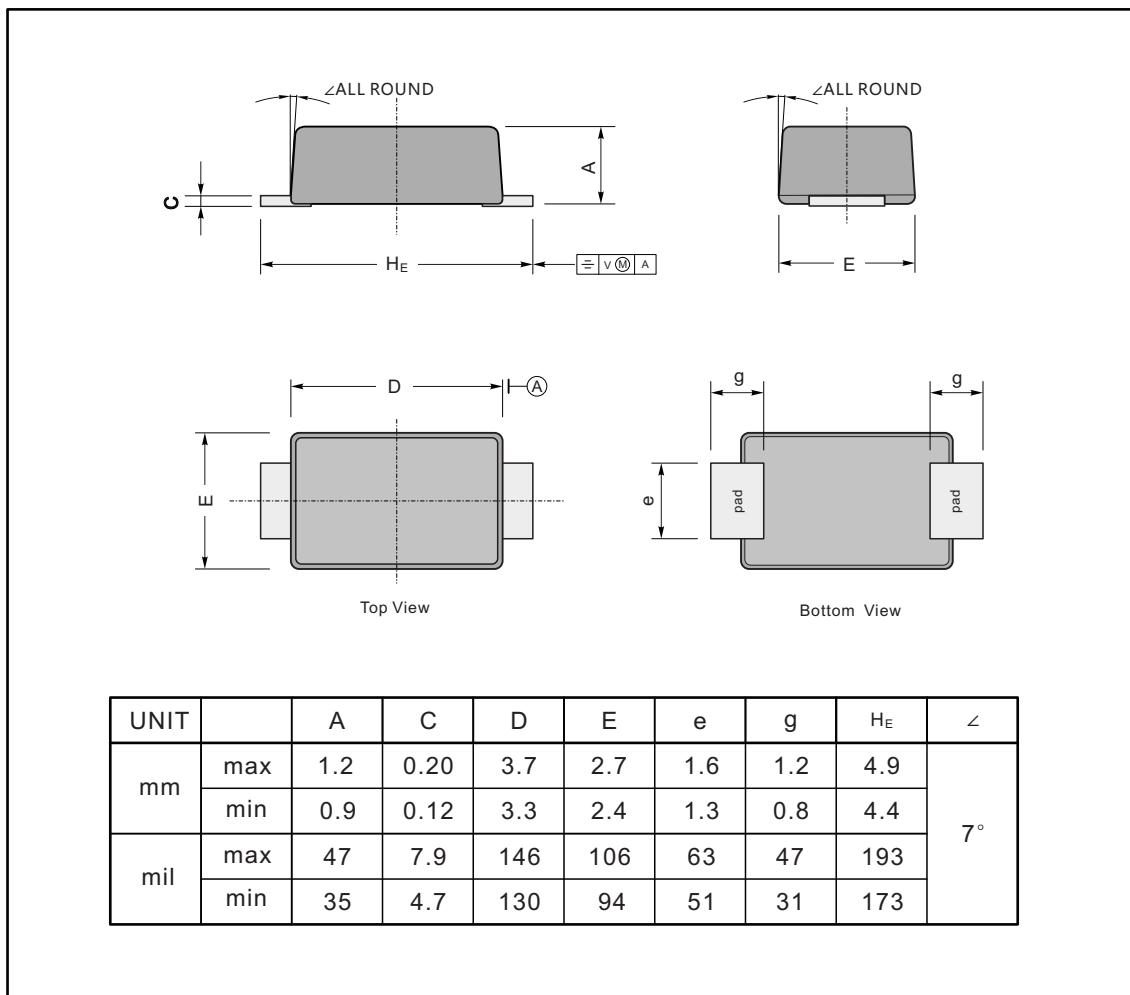
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### PACKAGE OUTLINE

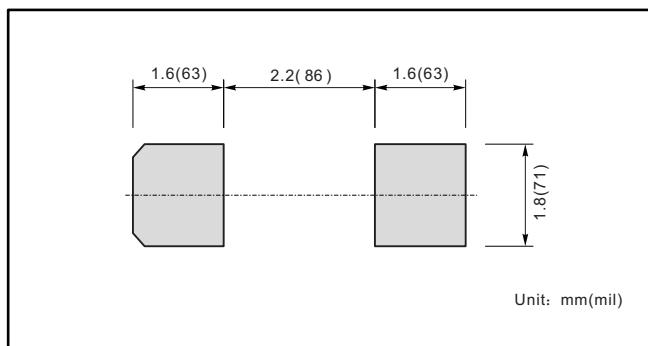
Plastic surface mounted package; 2 leads

SMAF



UNIT		A	C	D	E	e	g	H <sub>E</sub>	∠
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	47	7.9	146	106	63	47	193	7°
	min	35	4.7	130	94	51	31	173	

### The recommended mounting pad size



### Marking

Type number	Marking code
SS32F	SS32
SS34F	SS34
SS36F	SS36
SS38F	SS38
SS310F	SS310
SS312F	SS312
SS315F	SS315
SS320F	SS320