



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 0.00086oz

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 _{RRM}	20	40	45	60	80	100	120	150	200	V			
Maximum RMS voltage	V _{RMS}	14	28	31.5	42	56	70	84	105	140	V			
Maximum DC Blocking Voltage	V _{DC}	20	40	45	60	80	100	120	150	200	V			
Maximum Average Forward Rectified Current	I _{F(AV)}	3.0								A				
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	80					70							
Max Instantaneous Forward Voltage at 2 A	V _F	0.55		0.70			0.85		0.95		V			
Maximum DC Reverse Current at Rated DC Reverse Voltage T _a = 25°C T _a = 100°C T _a = 125°C	I _R	0.5 5 /			0.3 /			5			mA			
Typical Thermal Resistance ¹⁾	R _{θJA}	55								°C/W				
Operating Junction Temperature Range	T _j	-55 ~ +125								°C				
Storage Temperature Range	T _{stg}	-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

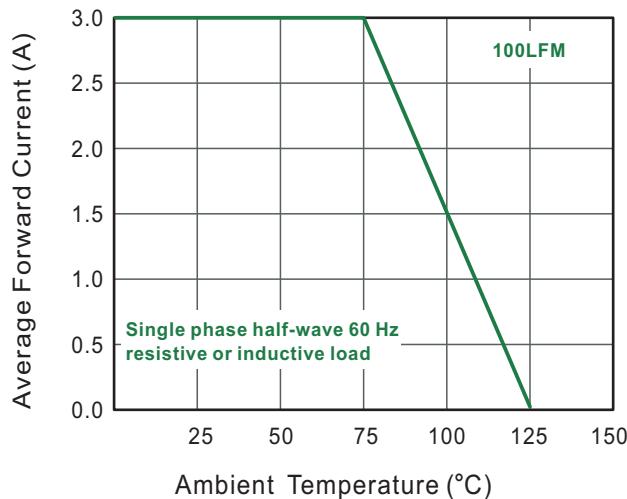


Fig.2 Typical Reverse Characteristics

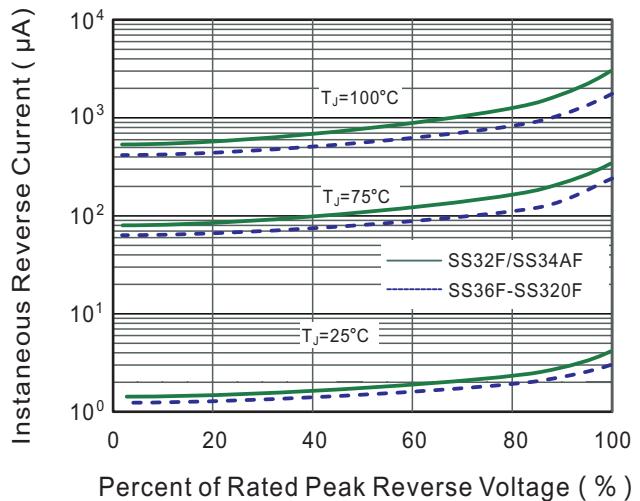


Fig.3 Typical Forward Characteristic

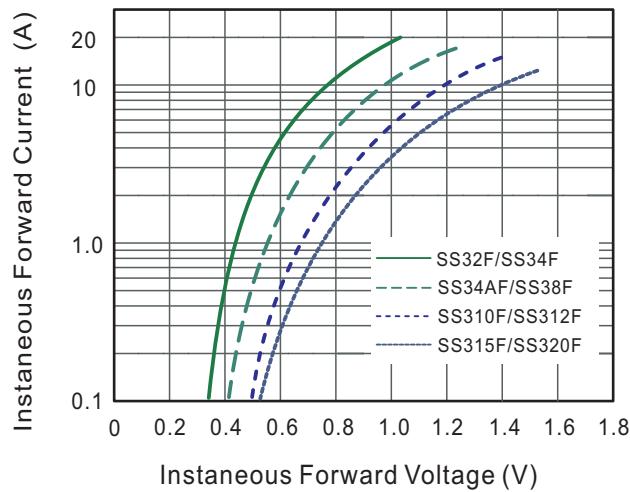
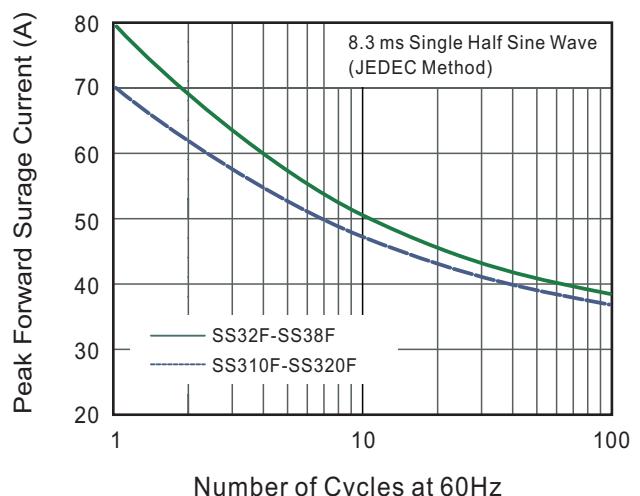


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current





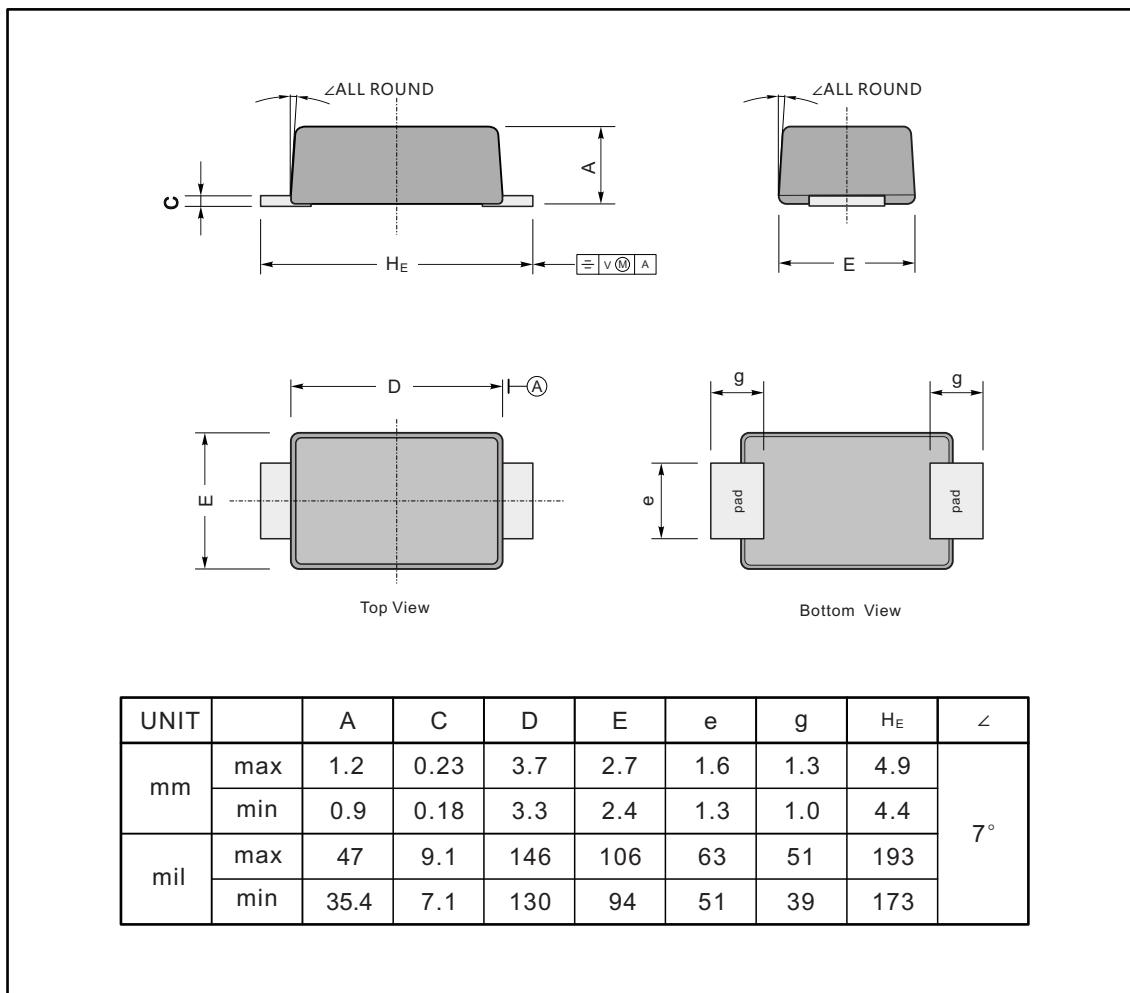
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PACKAGE OUTLINE

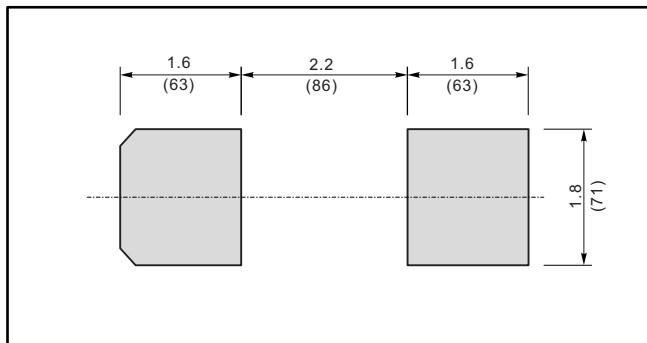
Plastic surface mounted package; 2 leads

SMAF



UNIT		A	C	D	E	e	g	H _E	∠
mm	max	1.2	0.23	3.7	2.7	1.6	1.3	4.9	7°
	min	0.9	0.18	3.3	2.4	1.3	1.0	4.4	
mil	max	47	9.1	146	106	63	51	193	7°
	min	35.4	7.1	130	94	51	39	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