

# SS32F-AT THRU SS320F-AT

## Surface Mount Schottky Barrier Rectifier

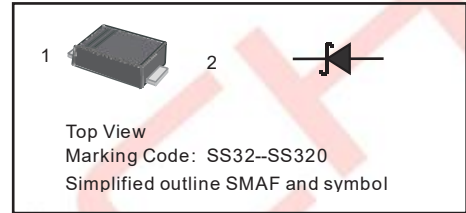
Reverse Voltage - 20 to 200 V      Forward Current - 3.0A

### 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



### 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-AT	SS34F-AT	SS34AF-AT	SS36F-AT	SS38F-AT	SS310F-AT	SS312F-AT	SS315F-AT	SS320F-AT	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									A
Max Instantaneous Forward Voltage at 3A	$V_F$	0.55	0.70			0.85	0.95				V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	$I_R$	0.5 5			0.3 3					mA	
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	250			180					pF	
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$ $R_{\theta JC}$	70 18								°C/W	
Operating Junction Temperature Range	$T_j$	-55 ~ +150									°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150									°C

(1) Measured at 1 MHz and applied reverse voltage of 4 VD.C

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

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## Typical Characteristics Curves

Fig.1 Forward Current Derating Curve

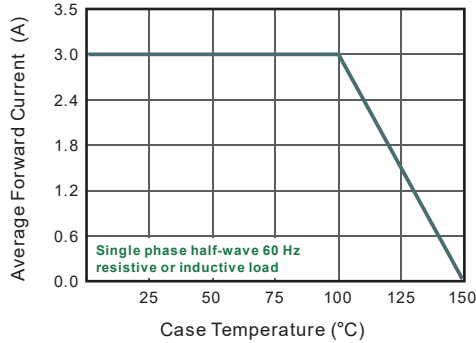


Fig.2 Typical Reverse Characteristics

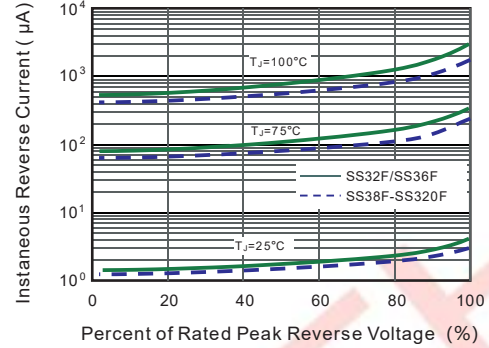


Fig.3 Typical Forward Characteristic

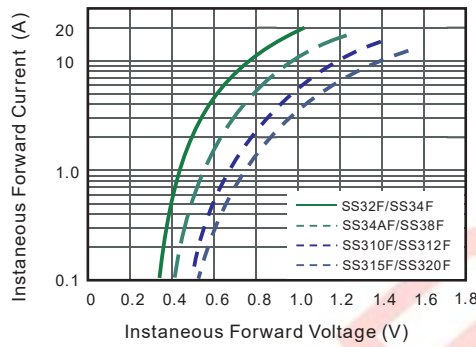


Fig.4 Typical Junction Capacitance

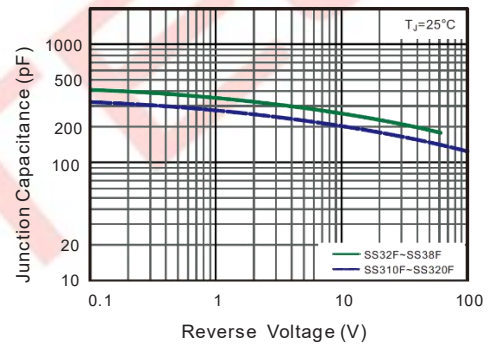


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

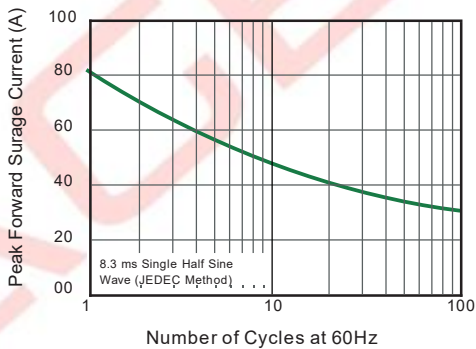
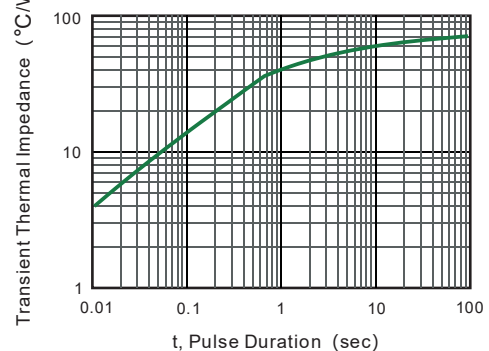


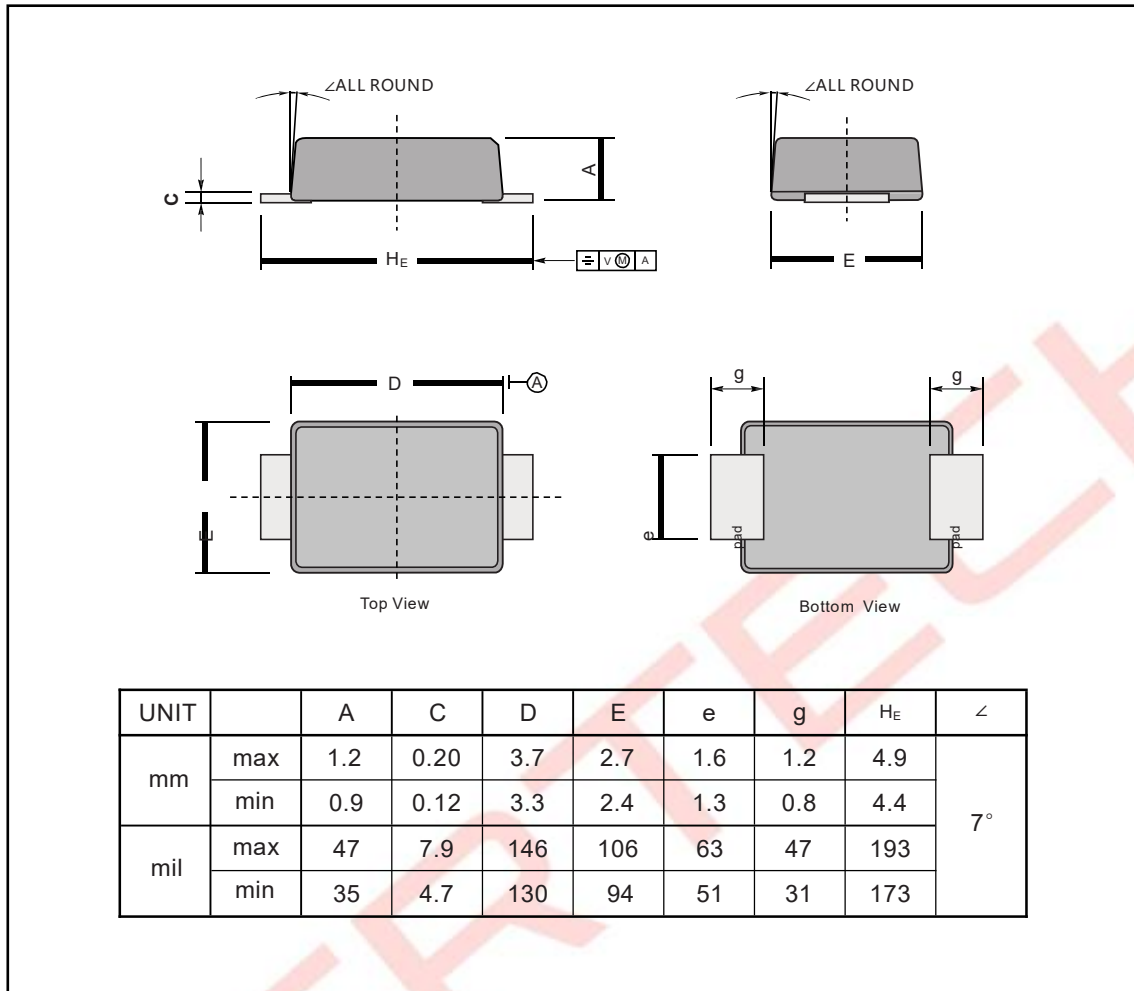
Fig.5- Typical Transient Thermal Impedance



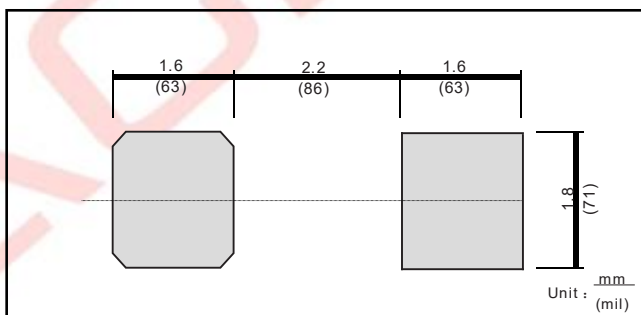
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## Package Outline

SMAF



### The recommended mounting pad size



### Marking

Type number	Marking code
SS32F-AT	SS32
SS34F-AT	SS34
SS34AF-AT	SS34A
SS36F-AT	SS36
SS38F-AT	SS38
SS310F-AT	SS310
SS312F-AT	SS312
SS315F-AT	SS315
SS320F-AT	SS320