



# SS32F-PJ thru SSF320-PJ

## Schottky Barrier Rectifier

### FEATURES

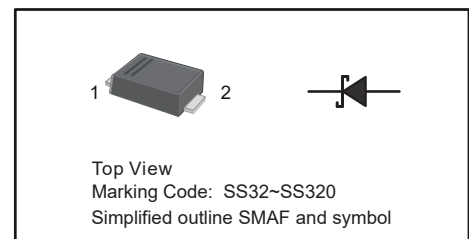
- ◆ For surface mount applications
- ◆ High forward surge current capability
- ◆ Low power loss, high efficiency
- ◆ Metal silicon junction, majority carriers conduction

### MECHANICAL DATA

- ◆ Case: SMAF molded plastic body
- ◆ Terminals: Solderable per MIL-STD-750 , Method 2026
- ◆ Weight: Approximated 0.027 grams

### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derating by 20 %.

| PARAMETER  | SYMBOL          | SS32F-PJ    | SS34F-PJ | SS34AF-PJ | SS36F-PJ | SS38F-PJ | SS310F-PJ | SS312F-PJ | SS315F-PJ | SS320F-PJ | UNIT |
|--|-----------------|-------------|----------|-----------|----------|----------|-----------|-----------|-----------|-----------|------|
| 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 at $T_C=75^\circ\text{C}$  | $I_{F(AV)}$     | 3.0         |          |           |          |          |           |           |           |           | A    |
| Peak Forward Surge Current (Note1)   | $I_{FSM}$       | 80          |          |           |          |          |           |           |           |           | A    |
| Maximum Forward Voltage at 3.0 A   | $V_F$           | 0.55        | 0.70     |           |          | 0.85     |           | 0.95      |           |           | V    |
| Maximum DC Reverse Current at Rated DC Blocking Voltage at $T_A=25^\circ\text{C}$<br>$T_A=100^\circ\text{C}$ | $I_R$           | 0.5<br>5    |          |           |          | 0.3<br>3 |           |           |           |           | mA   |
| Typical Junction Capacitance (Note2)   | $C_J$           | 250         |          |           |          | 180      |           |           |           |           | pF   |
| Typical Thermal Resistance (Note3)   | $R_{\theta JA}$ | 70          |          |           |          |          |           |           |           |           | °C/W |
|  | $R_{\theta JC}$ | 18          |          |           |          |          |           |           |           |           |      |
| Operating Junction Temperature Range   | $T_J$           | -55 to +125 |          |           |          |          |           |           |           |           | °C   |
| Storage Temperature Range  | $T_{STG}$       | -55 to +150 |          |           |          |          |           |           |           |           | °C   |

- Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).  
 2. Measured at 1MHz and applied reverse voltage of 4 V D.C.  
 3. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.



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## RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

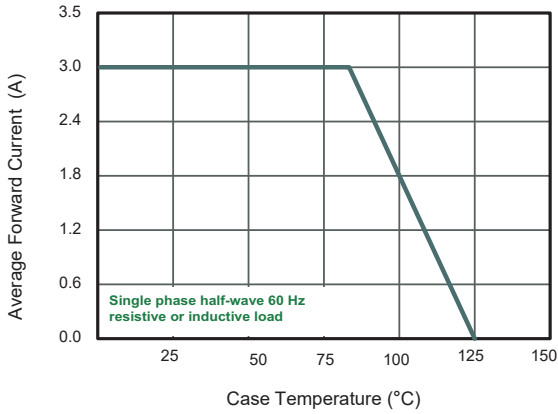


Fig.2 Typical Reverse Characteristics

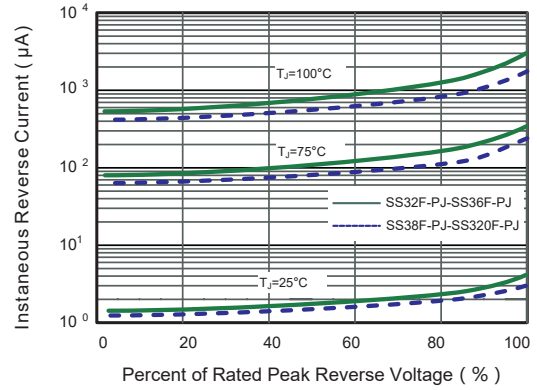


Fig.3 Typical Forward Characteristic

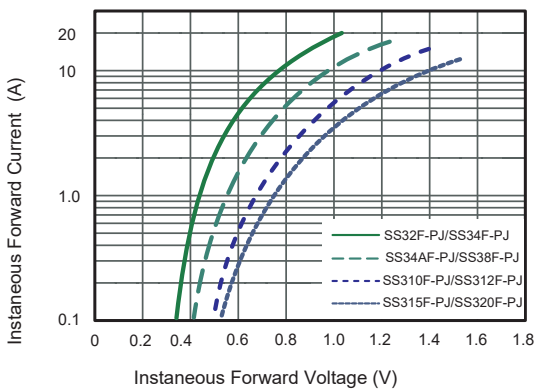


Fig.4 Typical Junction Capacitance

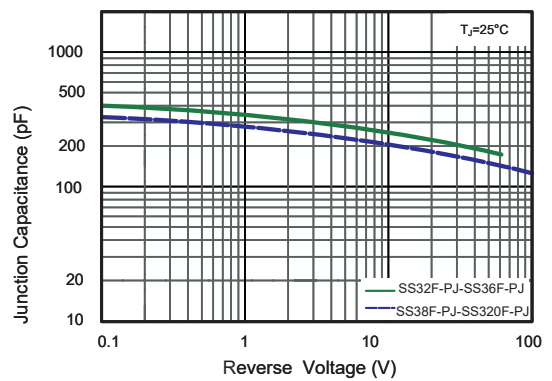


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

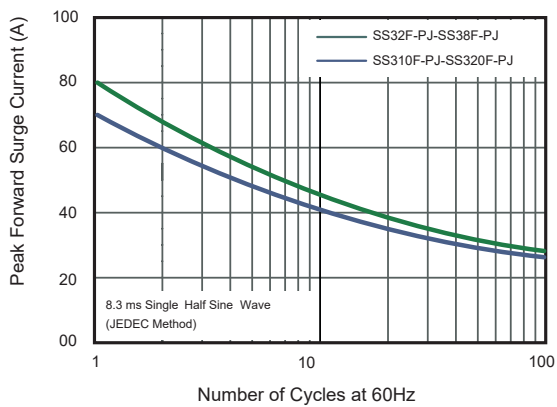
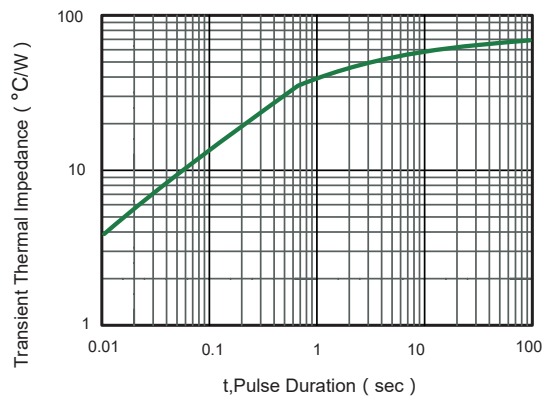


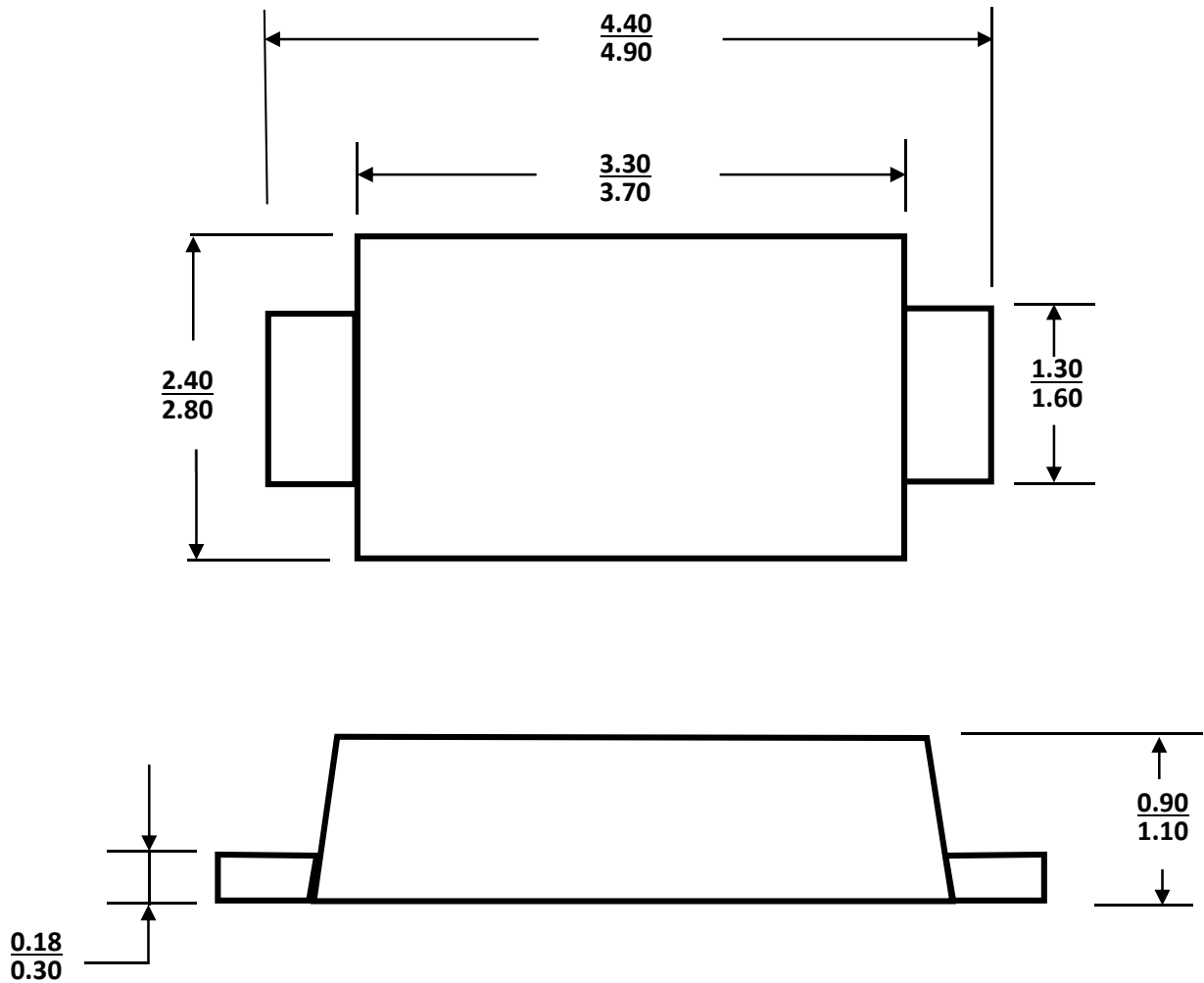
Fig.5- Typical Transient Thermal Impedance





PACKAGE OUTLINE

SMAF



Dimensions in millimeters

ORDERING INFORMATION

| Device                  | Package | Shipping                        |
|-------------------------|---------|---------------------------------|
| SS32F-PJ thru SS320F-PJ | SMAF    | 3,000/Tape & Reel (7 inches)    |
|                         |         | 10,000/ Tape & Reel (13 inches) |