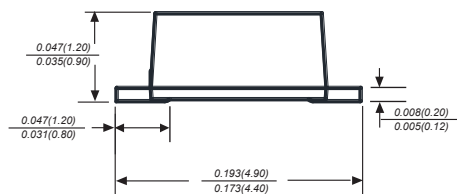
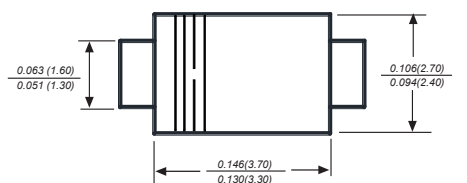


## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

### Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
260 °C/10 seconds at terminals

### SMAF



Dimensions in inches and (millimeters)

### Mechanical Data

Case: JEDEC SMAF molded plastic body

Terminals: Solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.0018 ounce, 0.064 grams

### 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 current derate by 20%.

| Parameter   | SYMBOLS         | SS32F        | SS33F        | SS34F        | SS35F        | SS36F        | SS38F        | SS310F        | SS3150F        | SS3200F        | UNITS |
|---|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|----------------|----------------|-------|
|   |                 | MDD<br>SS32F | MDD<br>SS33F | MDD<br>SS34F | MDD<br>SS35F | MDD<br>SS36F | MDD<br>SS38F | MDD<br>SS310F | MDD<br>SS3150F | MDD<br>SS3200F |       |
| Maximum repetitive peak reverse voltage   | $V_{RMM}$       | 20           | 30           | 40           | 50           | 60           | 80           | 100           | 150            | 200            | V     |
| Maximum RMS voltage   | $V_{RMS}$       | 14           | 21           | 28           | 35           | 42           | 56           | 70            | 105            | 140            | V     |
| Maximum DC blocking voltage   | $V_{DC}$        | 20           | 30           | 40           | 50           | 60           | 80           | 100           | 150            | 200            | V     |
| Maximum average forward rectified current at TL (see fig.1)   | $I_{(AV)}$      | 3.0          |              |              |              |              |              |               |                |                | A     |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)                | $I_{FSM}$       | 80           |              |              |              |              |              |               |                |                | A     |
| Maximum instantaneous forward voltage at 3.0A   | $V_F$           | 0.55         |              |              | 0.70         |              | 0.85         |               |                | 0.95           | V     |
| Maximum DC reverse current<br>at rated DC blocking voltage<br>$T_A=25^\circ\text{C}$<br>$T_A=125^\circ\text{C}$ | $I_R$           | 0.5          |              |              |              |              |              |               | 0.2            |                | mA    |
|   |                 | 20.0         |              |              |              |              | 10           |               | 2.0            |                |       |
| Typical junction capacitance (NOTE 1)   | $C_J$           | 500          |              |              | 300          |              |              |               |                |                | pF    |
| Typical thermal resistance (NOTE 2)   | $R_{\theta JA}$ | 55.0         |              |              |              |              |              |               |                |                | °C/W  |
| Operating junction temperature range  | $T_J$           | -55 to +125  |              |              |              |              |              |               |                |                | °C    |
| Storage temperature range   | $T_{STG}$       | -55 to +150  |              |              |              |              |              |               |                |                | °C    |

Note: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.

2. P.C.B. mounted with 2.0x2.0" (5.0x5.0cm) copper pad areas.

3. The typical data above is for reference only.

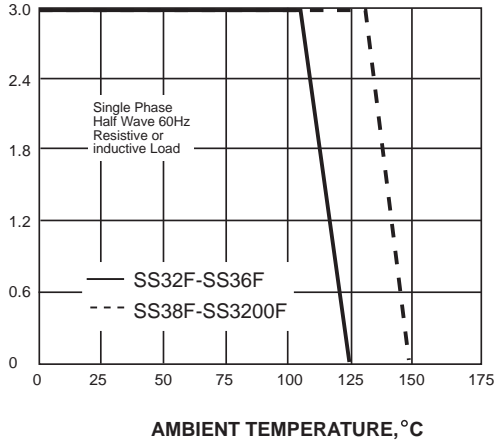
# SS32F THRU SS3200F

Reverse Voltage - 20 to 200 Volts Forward Current - 3.0 Ampere

## Typical Characteristics

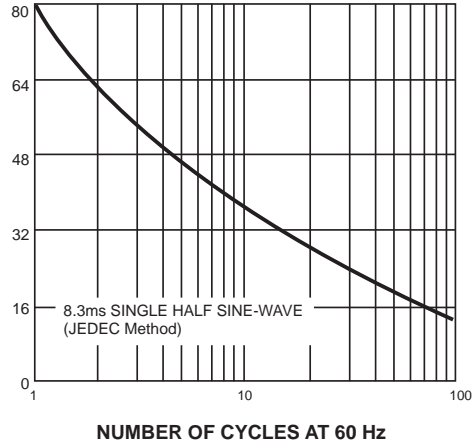
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



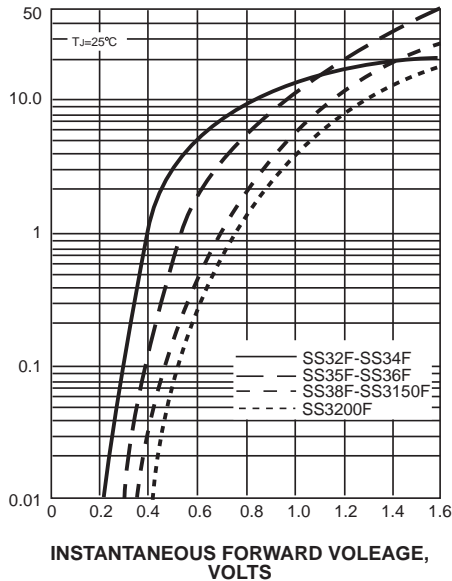
PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



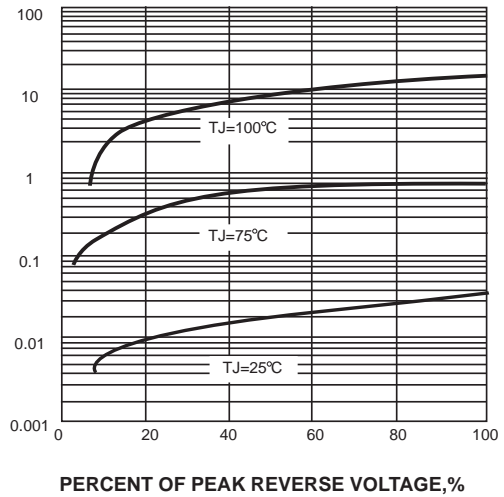
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



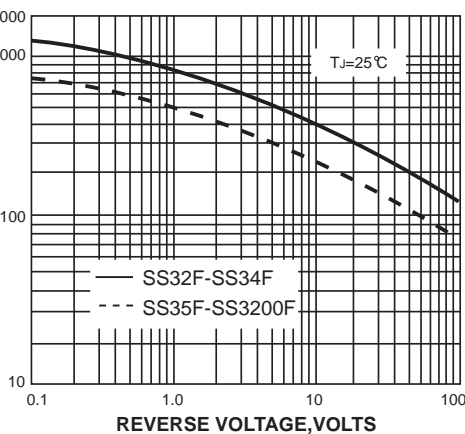
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



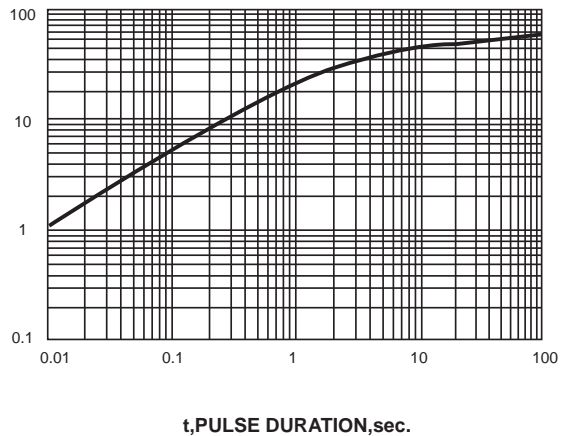
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.