

FEATURES

The plastic package carries Underwriters Laboratory

Flammability Classification 94V-0

- For surface mounted applications
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed:
250°C/10 seconds at terminals

MECHANICAL DATA

- **Case:** Molded plastic, SMAF
- **Terminals:** leads solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any

TYPICAL APPLICATIONS

- For use in low voltage ,high frequency inverters ,DC/DC converters, free wheeling ,and polarity protection applications

Maximum Ratings and Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	SS 32F	SS 33F	SS 34F	SS 36F	SS 38F	SS 310F	SS 315F	SS 320F	Unit	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	60	80	100	150	200	V	
Maximum RMS voltage	V_{RMS}	14	21	28	42	56	70	105	140	V	
Maximum DC blocking voltage	V_{DC}	20	30	40	60	80	100	150	200	V	
Maximum average forward rectified current(see fig.1)	$I_{F(AV)}$	3								A	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	80								A	
Maximum instantaneous forward voltage at 3.0 A (Note 1)	V_F	0.55			0.70	0.85		0.95		V	
Maximum instantaneous reversecurrent at rated DC blockingvoltage (Note 2) T_A=25℃ T_A=100℃	I_{RRM}	0.2				0.05		0.02		mA	
		50									
Typical junction capacitance (Note 3)		500				400				pF	
Operating junction and Storage temperature range	T_J	-65 to +125					-65 to +150				℃
Storage temperature range	T_{STG}	-65 to +150									

Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	SS32F THRU SS320F	Unit
Typical thermal resistance (Note 4)	$R_{\theta JA}$	78	°C/W
	$R_{\theta JL}$	18	

Note: 1. Pulse test: 300 μ s pulse width, 1% duty cycle

2. Pulse test: pulse width $\leq$ 40ms

3. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

4. Device mounted on PCB with 10 mm x 20 mm x 0.1mm copper pad areas.

RATING AND CHARACTERISTIC CURVES

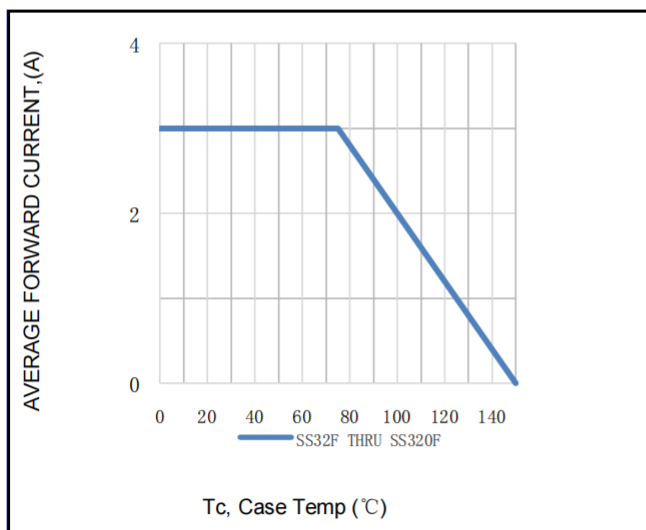


Fig.1-FORWARD CURRENT DERATING CURVE

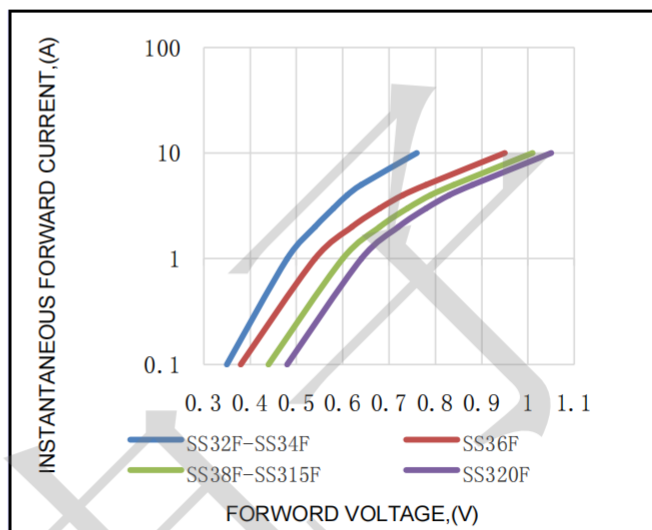


Fig.2- TYPICAL INSTANTANEOUS FORWARD

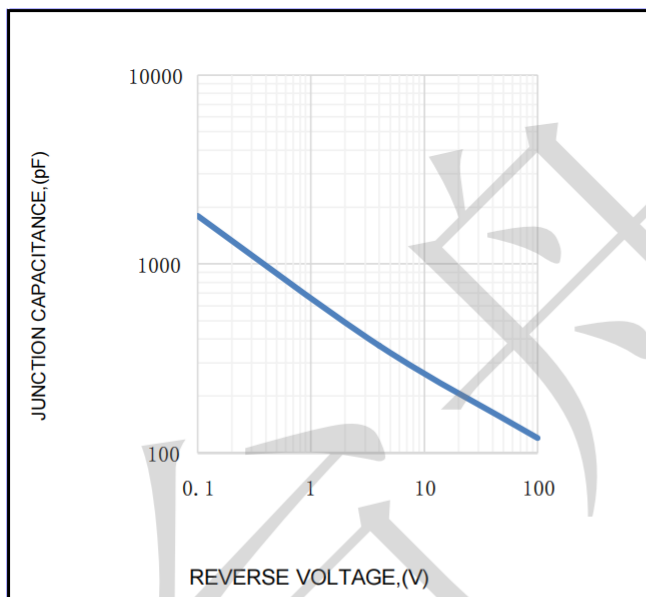


Fig.3- TYPICAL JUNCTION CAPACITANCE

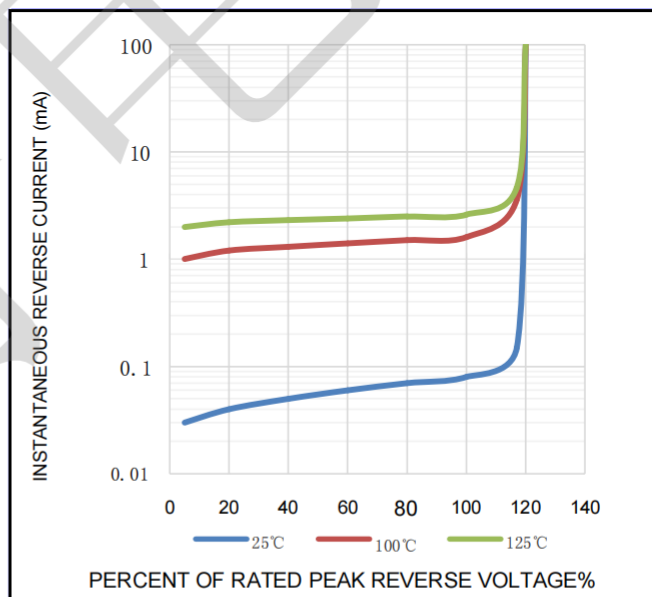


Fig.4- TYPICAL REVERSE CHARACTERISTICS

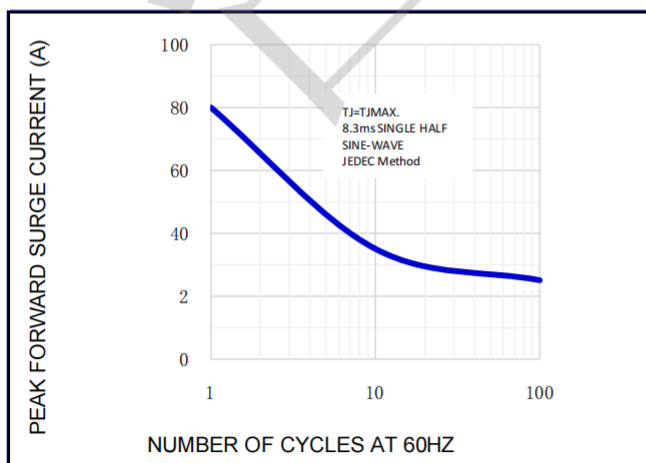
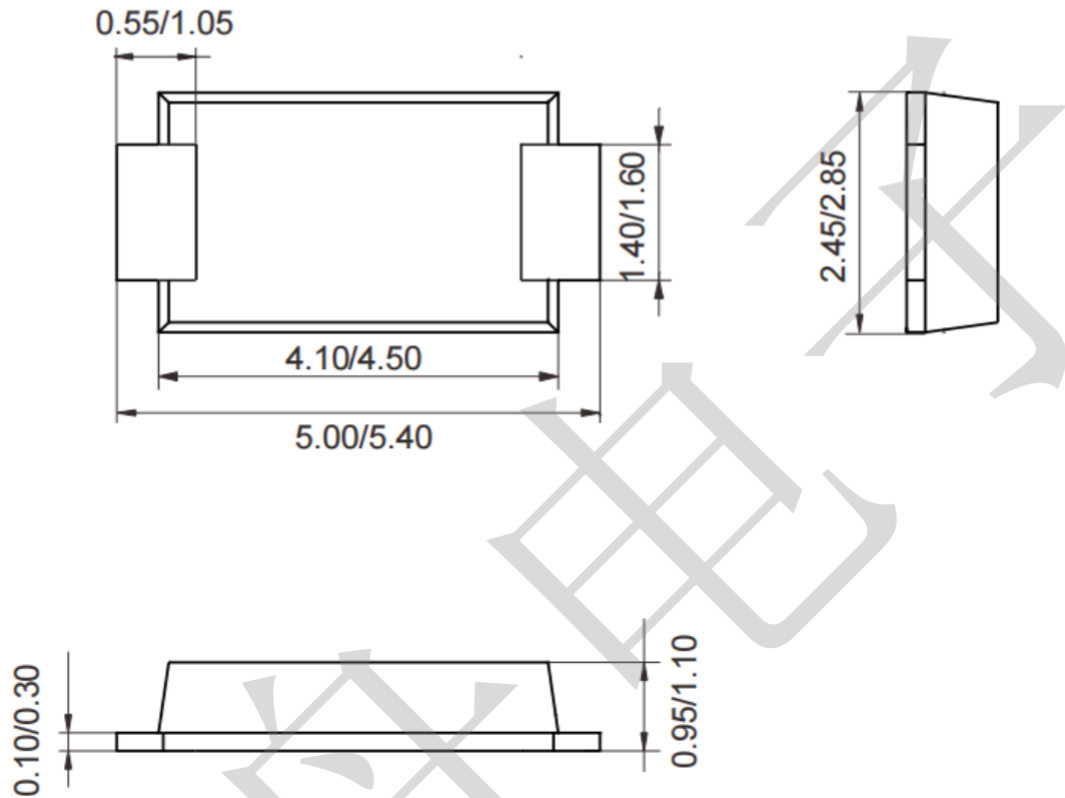


Fig.5-MAX. NON-REPETITIVE SURGE CURRENT

Package Outline Dimensions (unit:mm)

SMAF



Mounting Pad Layout (unit: mm)

