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台舟电子

SS52F THRU SS520F
SCHOTTKY RECTIFIERS

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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℃/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 Characteristcs(Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter	*Symbol*	*SS 52F*	*SS 53F*	*SS 54F*	*SS 56F*	*SS 58F*	*SS 510F*	*SS 515F*	*SS 520F*	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.2)	$IF_{(AV)}$	5								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	100								A
Maximum instantaneous forward voltage at 5.0 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}	0.5 / 50								mA
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 Characteristcs (Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter	Symbol	SS52F THRU SS520F	Unit
Typical thermal resistance (Note 4)	$R_{\theta JA}$	60	℃/W

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

2.Pulse test: pulse width≤40ms

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

4.Thermal resistance from junction to lead vertical P.C.B. mounted , 0.375"(9.5mm)lead length

RATINGANDCHARACTERISTICCURVES

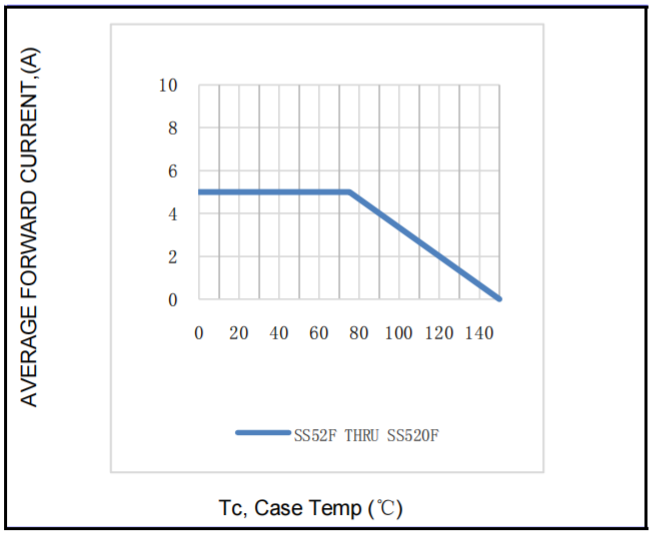


Fig.1-FORWARD CURRENT DERATING CURVE

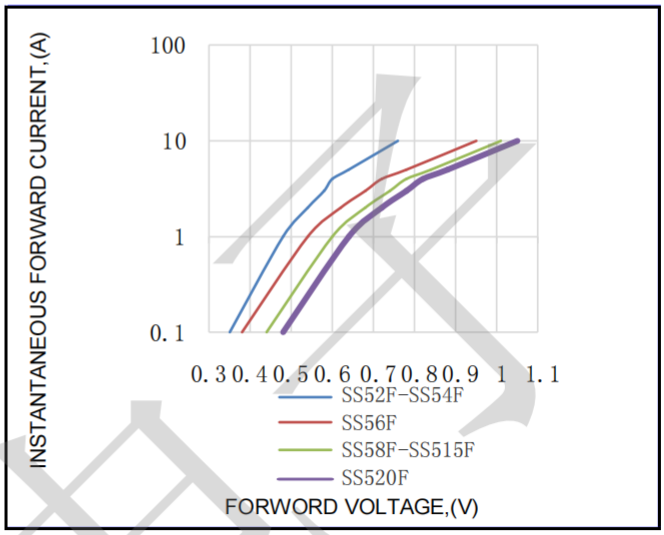


Fig.2- TYPICAL INSTANTANEOUS FORWARD

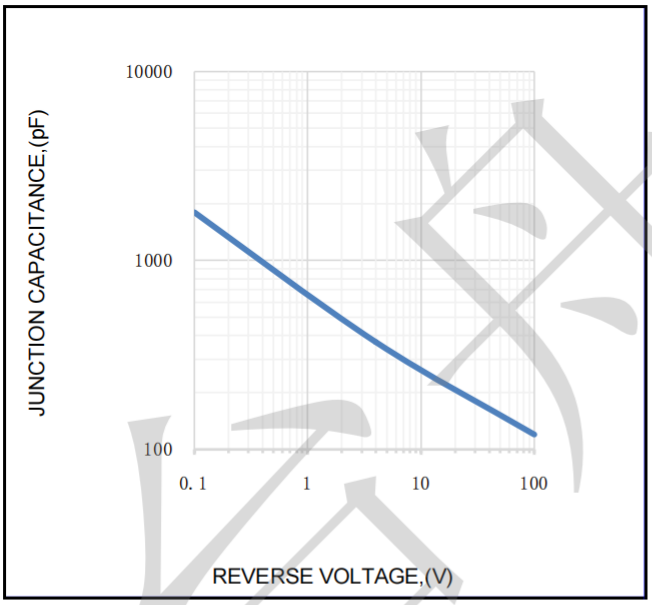


Fig.3- TYPICAL JUNCTION CAPACITANCE

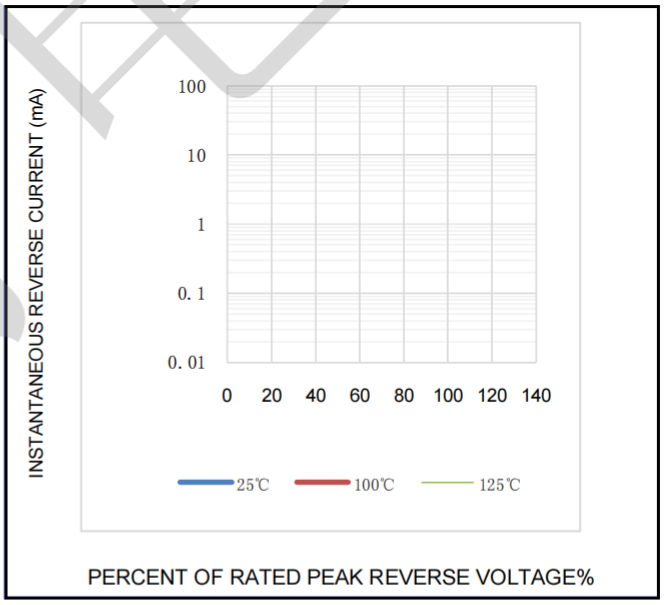


Fig.4- TYPICAL REVERSE CHARACTERISTICS

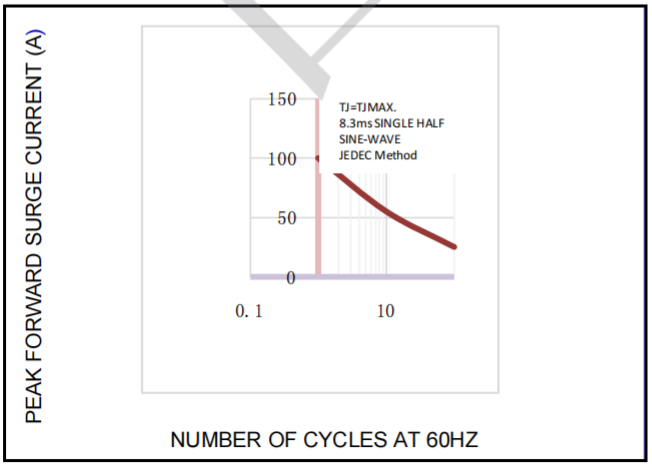
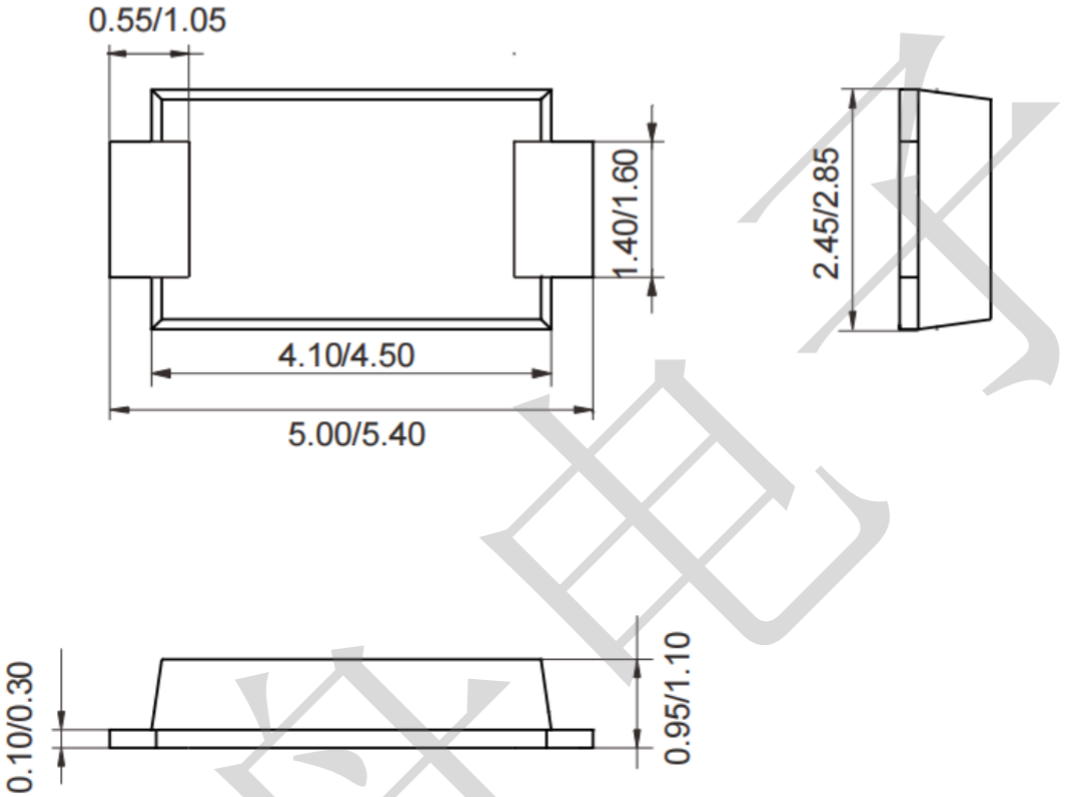
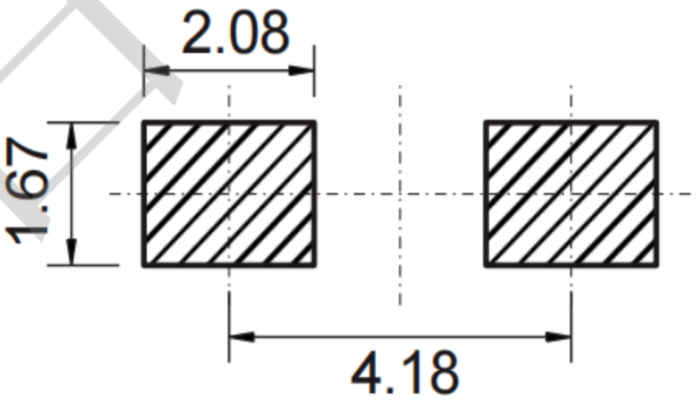


Fig.5-MAX. NON-REPETITIVE SURGE CURRENT

Package Outline Dimensions (unit:mm)

SMAF



Mounting Pad Layout (unit: mm)