SEMICONDUCTOR

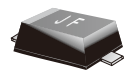
SS32S THRU SS320S

SCHOTTKY BARRIER RECTIFIER

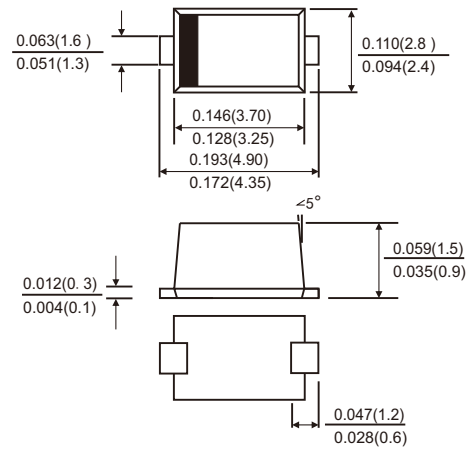
Reverse Voltage - 20 to 200 Volts
Forward Current - 3.0Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Low profile package
- built-in strain relief ,ideal for automated placement
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU



SMAF



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: SMAF molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

		Symbols	SS 32S	SS 33S	SS 34S	SS 36S	SS 310S	SS 315S	SS 320S	Units
Maximum repetitive peak reverse voltage		V_{RRM}	20	30	40	60	100	150	200	Volts
Maximum RMS voltage		V_{RMS}	14	21	28	42	70	105	140	Volts
Maximum DC blocking voltage		V_{DC}	20	30	40	60	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length (See Fig.1)		$I_{(AV)}$	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	80.0							Amps
Maximum instantaneous forward voltage at 3.0 A(Note 1)		V_F	0.55			0.70	0. 85	0.90	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T_A=25°C	I_R	100				20			μA
	T_A=100°C		5				–			mA
	T_A=125°C		–				3			
Typical junction capacitance(Note 2)		C_J	160				100			pF
Typical thermal resistance		$R_{\theta JA}$	50. 0							°C/W
Operating junction temperature range		T_J	-55 to+150							°C
Storage temperature range		T_{STG}	-55 to+150							°C

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

2. Measured at 1MHz and reverse voltage of 4.0volts

FIG.1-FORWARD CURRENT DERATING CURVE

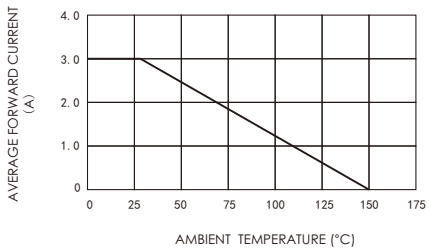


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

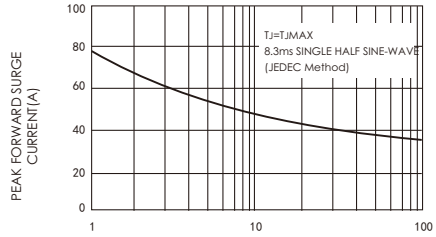


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

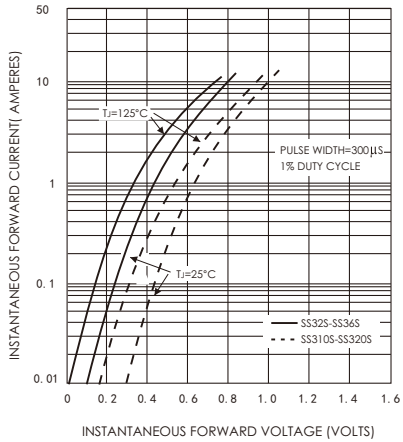


FIG.4-TYPICAL REVERSE CHARACTERISTICS

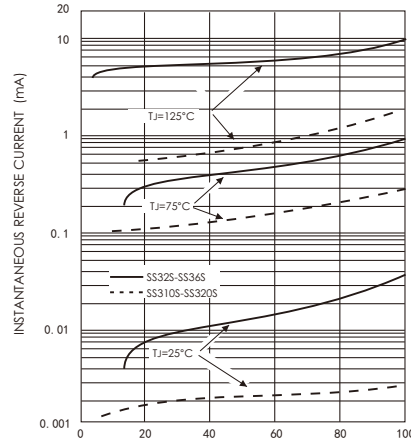


FIG.5-TYPICAL JUNCTION CAPACITANCE