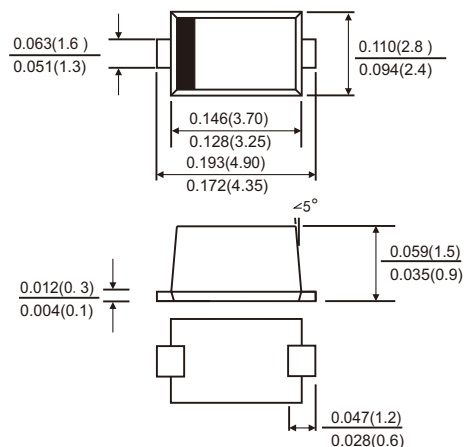


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- 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



MECHANICAL DATA

- Case: SMAF molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002ounce, 0.064 gram

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 12S	SS 13S	SS 14S	SS 16S	SS 110S	SS 115S	SS 120S	Volts
Maximum repetitive peak reverse voltage		VRRM	20	30	40	60	100	150	200	Volts
Maximum RMS voltage		VRMS	14	21	28	42	71	105	140	Volts
Maximum DC blocking voltage		VDC	20	30	40	60	100	150	200	Volts
Maximum average forward rectified current (See Fig. 1)		I(AV)	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		IFSM	40.0							Amps
Maximum instantaneous forward voltage at 1.0 A(note 1)		VF	0.55			0.75	0.85	0.90	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	TA=25°C	IR	100				20			µA
	TA=100°C		5.0				-			mA
	TA=125°C		-				3.0			
Typical thermal resistance (Note 2)		RθJA	50.0							°C/W
Operating junction temperature range		TJ	-55 to +150							°C
Storage temperature range		TSTG	-55 to +150							°C

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

2. P.C.B. mounted with 0.2 X 0.2"(5.0 X 5.0mm)copper pad areas

RATINGS AND CHARACTERISTIC CURVES SS12S THRU SS120S

FIG.1-FORWARD CURRENT DERATING CURVE

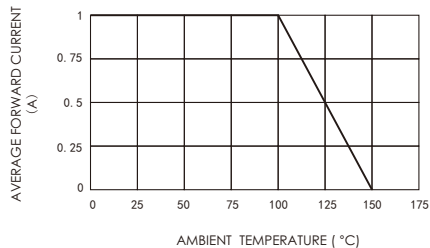


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

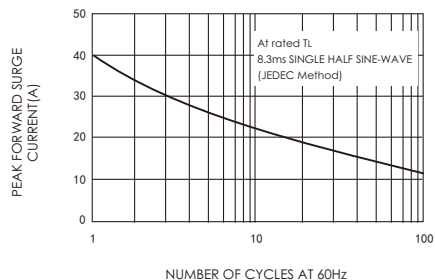


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

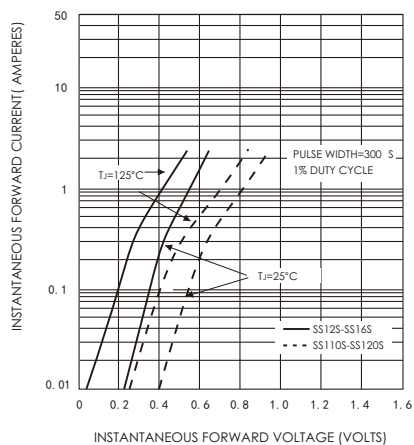


FIG.4-TYPICAL REVERSE CHARACTERISTICS

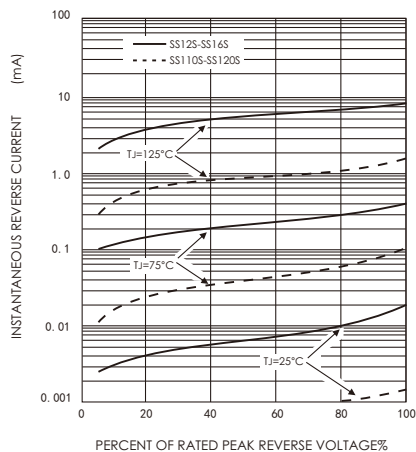


FIG.5-TYPICAL JUNCTION CAPACITANCE

