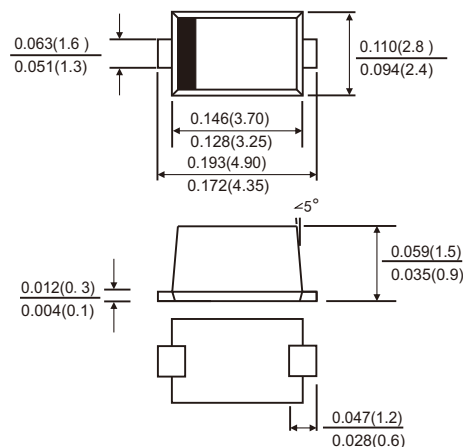


### FEATURES

- 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	V <sub>RRM</sub>	20	30	40	60	100	150	200	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	42	71	105	140	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	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)	I <sub>FSM</sub>	40.0							Amps
Maximum instantaneous forward voltage at 1.0 A(note 1)	V <sub>F</sub>	0.55		0.75	0.85	0.90	0.95		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T <sub>A</sub> =25°C	100				20			μA
	T <sub>A</sub> =100°C	5.0				-			mA
	T <sub>A</sub> =125°C	-				3.0			
Typical thermal resistance (Note 2)	R <sub>θJA</sub>	50.0							°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to+150							°C
Storage temperature range	T <sub>STG</sub>	-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

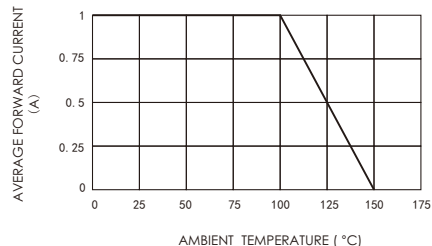


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

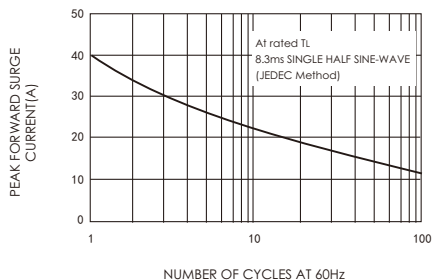


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

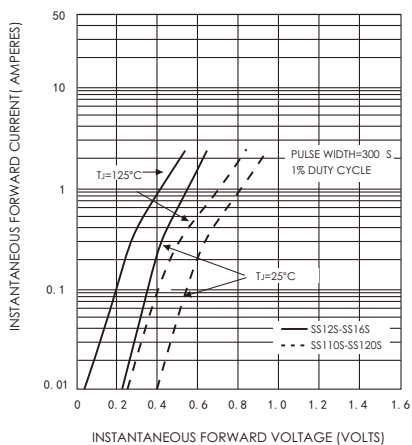


FIG.4-TYPICAL REVERSE CHARACTERISTICS

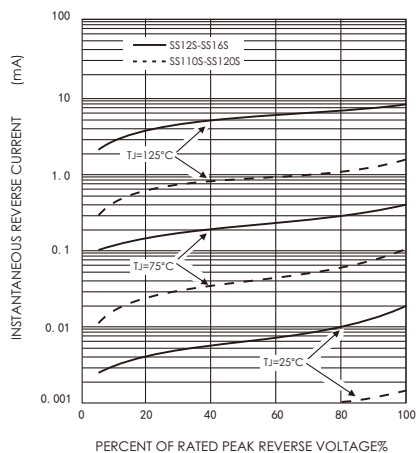


FIG.5-TYPICAL JUNCTION CAPACITANCE

