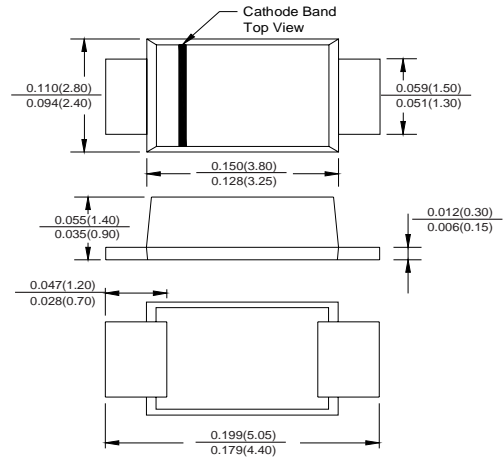


### FEATURES

- 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 2002/95/EC and WEEE 2002/96/EC



### SMAF



Dimensions in inches and (millimeters)

### MECHANICAL DATA

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 27mg 0.00086oz

### 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 12F	SS 13F	SS 14F	SS 15F	SS 16F	SS 18F	SS 110F	SS 115F	SS 120F	Volts
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	57	71	105	140	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	80	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)	I <sub>R</sub>	0.2									mA
		10.0									
Typical thermal resistance (Note 2)	R <sub>JA</sub>	88.0									°C/W
	R <sub>JL</sub>	28.0									
Operating junction temperature range	T <sub>J</sub>	-65 to +150									°C
Storage temperature range	T <sub>STG</sub>	-65 to +150									°C

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

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

FIG.1-FORWARD CURRENT DERATING CURVE

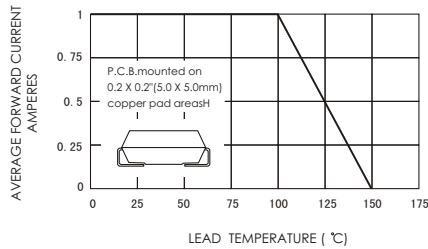


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

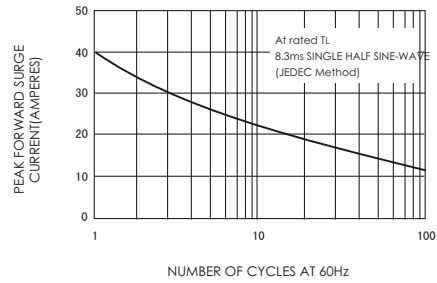


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

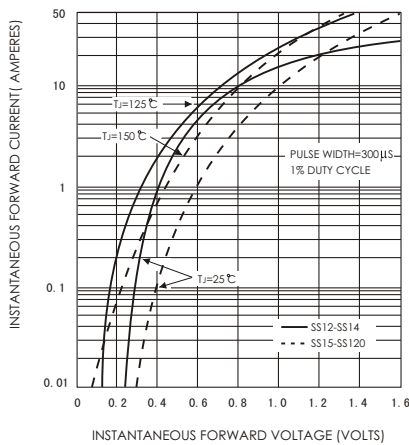


FIG.4-TYPICAL REVERSE CHARACTERISTICS

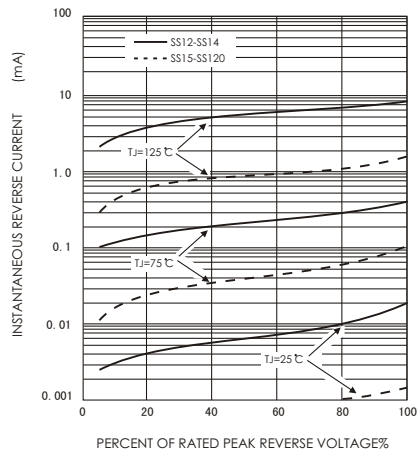


FIG.5-TYPICAL JUNCTION CAPACITANCE

