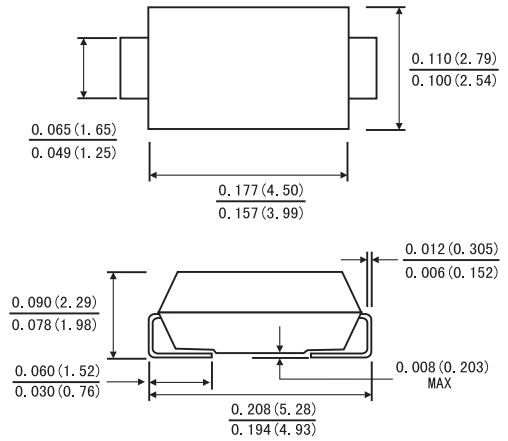


### FEATURES

- 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:250°C/10 seconds at terminals



### SMA(DO-214AC)



Dimensions in inches and (millimeters)

### MECHANICAL DATA

- Case: JEDEC SMA(DO-214AC) molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- 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 5817	SS 5818	SS 5819	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	Volts
Maximum non-repetitive peak reverse voltage	V <sub>RSM</sub>	24	36	48	Volts
Maximum average forward rectified current 0.375"(9.5mm)lead length at T <sub>L</sub> =90 C °	I(AV)	1.0			Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) at T <sub>L</sub> =70 C	I <sub>FSM</sub>	25.0			Amps
Maximum instantaneous forward voltage at 1.0 A(note 1)	V <sub>F</sub>	0.450	0.550	0.600	Volts
Maximum instantaneous forward voltage at 3.1 A(note 1)	V <sub>F</sub>	0.750	0.875	0.900	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I <sub>R</sub>	0.5			mA
		10.0			
Typical junction capacitance(Note 3)	C <sub>J</sub>	110.0			PF
Typical thermal resistance(Note 2)	R <sub>θJA</sub>	88.0			°C/W
	R <sub>θJL</sub>	28.0			
Operating junction and storage temperature range	T <sub>J</sub> T <sub>STG</sub>	-65 to +125			°C

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

2.Thermal resistance (from junction to ambient)Vertical P.C.B. mounted , with 1.5X1.5"(38X38mm)copper pads

3.Measured at 1.0MHz and reverse voltage of 4.0 volts

# RATINGS AND CHARACTERISTIC CURVES SS5817 THRU SS5819

FIG. 1-FORWARD CURRENT DERATING CURVE

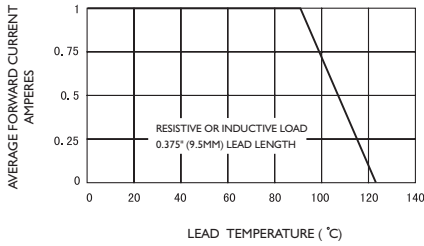


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

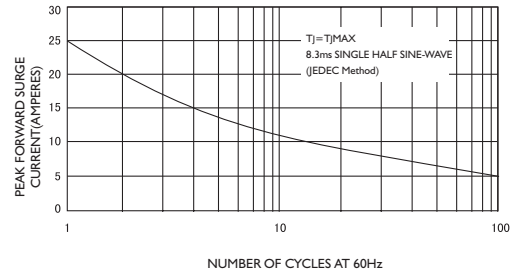


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

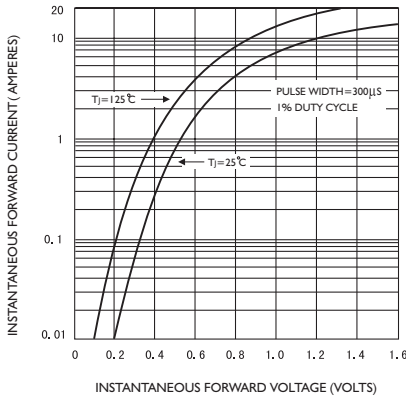


FIG.4-TYPICAL REVERSE CHARACTERISTICS

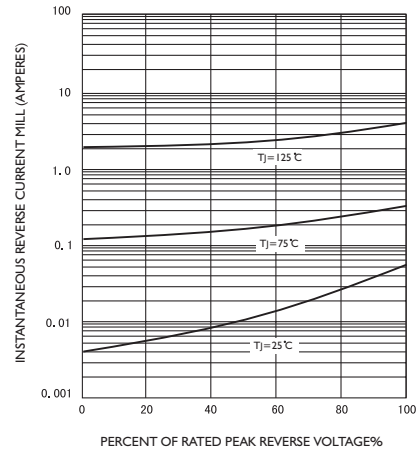


FIG.5-TYPICAL JUNCTION CAPACITANCE

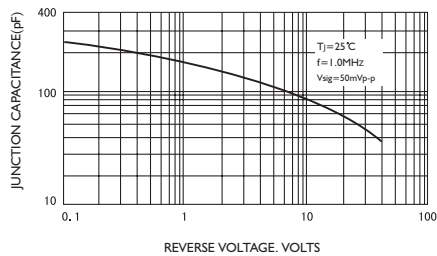


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

