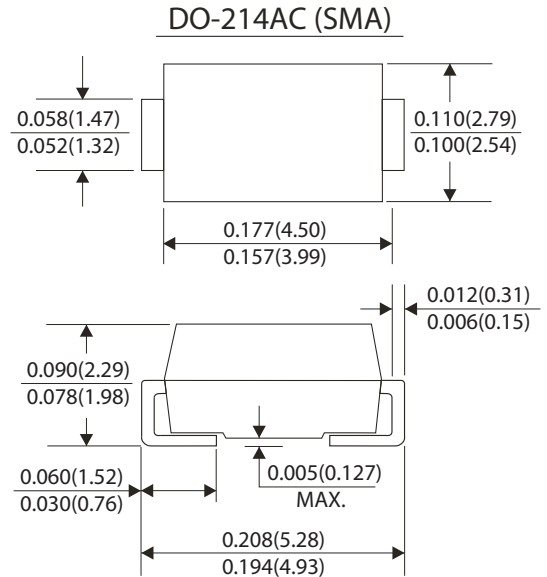


### Features

- 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

### Mechanical Data

- Case : JEDEC SMA(DO-214AC) molded plastic body
- Terminals : Solder Plate, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Weight : 0.002 ounce, 0.064 gram



Dimensions in inches and (millimeters)

### 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	SS12	SS13	SS14	SS15	SS16	SS18	SS19	SS100	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	90	100	Volts
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	63	70	Volts
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	80	90	100	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(see Fig. 1)	$I_{(AV)}$	1.0								Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	25.0								Amps
Maximum instantaneous forward voltage at 1.0A (Note 1)	$V_F$	0.55			0.70		0.85			Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note1)	$T_A=25\text{ }^\circ\text{C}$	1.0								mA
	$T_A=100\text{ }^\circ\text{C}$	10								
Typical thermal resistance (Note 2)	$R\theta_{JA}$	50								$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-50 to +125								$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-65 to +150								$^\circ\text{C}$

#### Notes:

- (1) Pulse test: 300  $\mu\text{S}$  pulse width, 1% duty cycle
- (2) Thermal resistance junction to ambient



# RATINGS AND CHARACTERISTIC CURVES SS12 THRU SS100

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

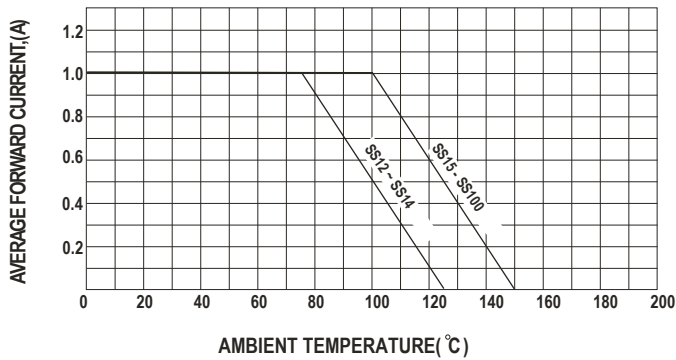


FIG.2-TYPICAL FORWARD CHARACTERISTICS

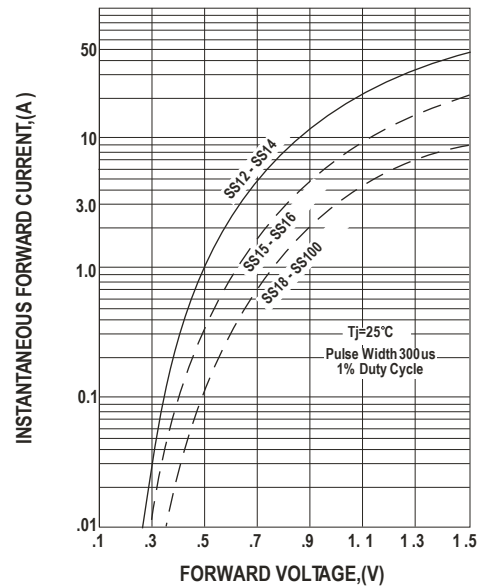


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

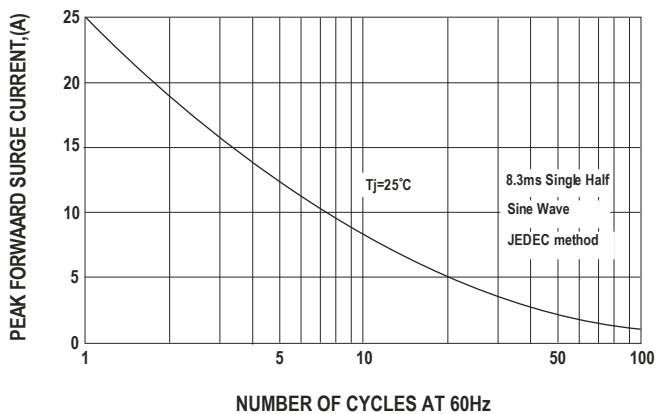


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

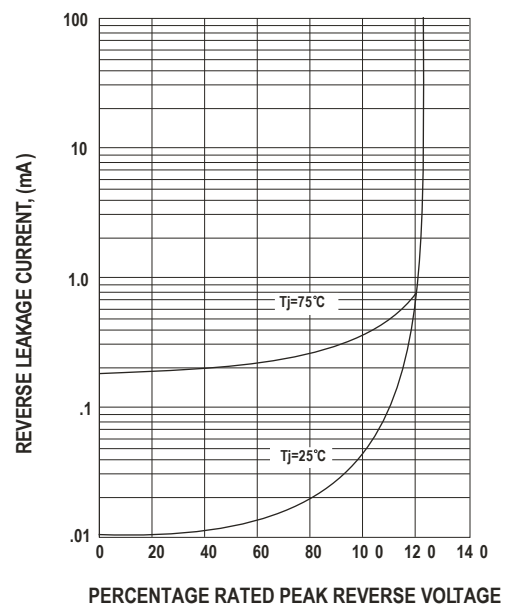


FIG.4-TYPICAL JUNCTION CAPACITANCE

