



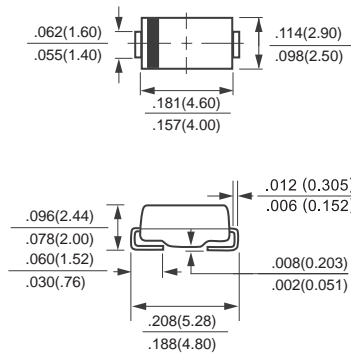
**VOLTAGE RANGE - 20 to 80 Volts CURRENT - 1.0 Ampere**

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated solderable per MIL-STD-750, Method 2026
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 0.064 gram

**FEATURES**

- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Glass passivated junction



SMA (DO-214AC)



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	SMA5817 SS12	SMA5818 SS13	SMA5819 SS14	SR150 SS15	SR160 SS16	SR170 SS18	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	Volts
Maximum RMS Bridge Input Voltage	$V_{RMS}$	14	21	28	35	42	56	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	Volts
Maximum Average Forward Rectified Current at Derating Lead Temperature	$I_o$	1.0						Amps
Peak Forward Surge Current: 8.3 ms single half sine-wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	30						Amps
Maximum Instantaneous Voltage at 1.0A DC	$V_F$	0.55		0.70		0.85		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	@ $T_A = 25^\circ C$						mAmps
		@ $T_A = 100^\circ C$						
Typical Junction Capacitance ( Note 1 )	$C_J$	110						pF
Typical Thermal Resistance ( Note 2 )	$R_{\theta JA}$	88						$^\circ C/W$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +125 , -65 to +150						$^\circ C$

Notes: 1. Measured at 1 MHz and applied reverse voltage of 4.0volts.  
2. Thermal Resistance from Junction to Ambient, .02X0.2\*(5.0X5.0mm<sup>2</sup>) copper pad area.

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FIG. 1 TYPICAL FORWARD CURRENT DERATING CURVE

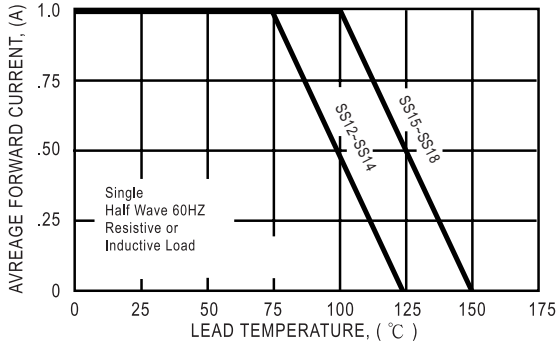


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

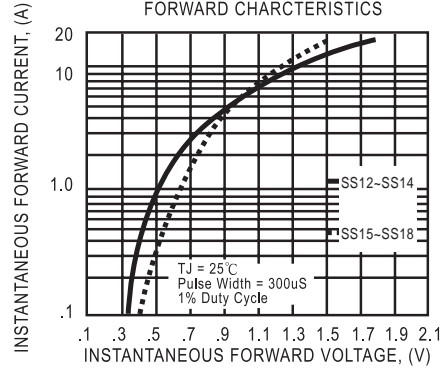


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

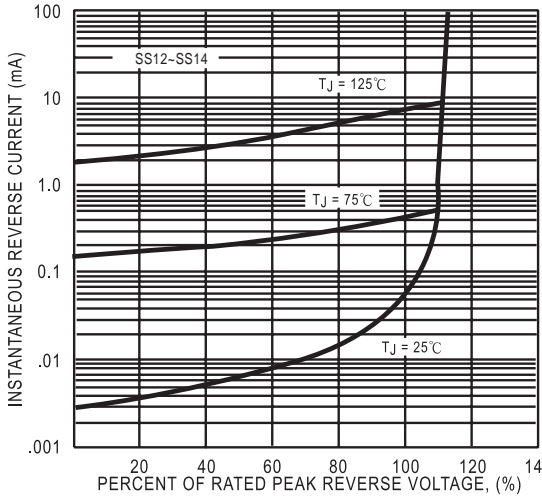


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

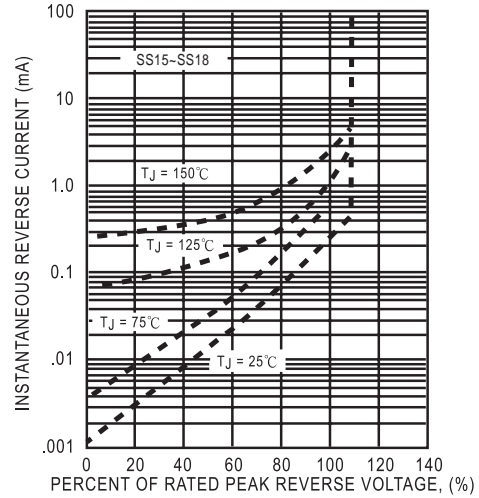


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

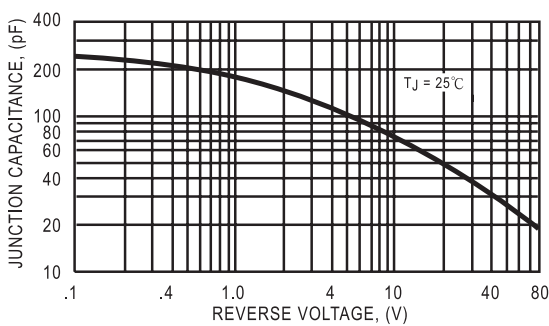
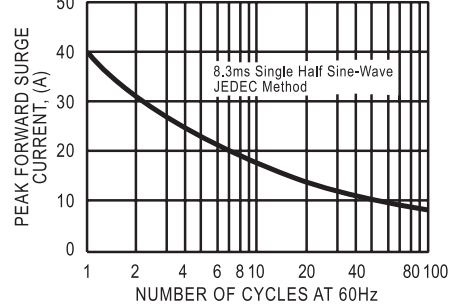


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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