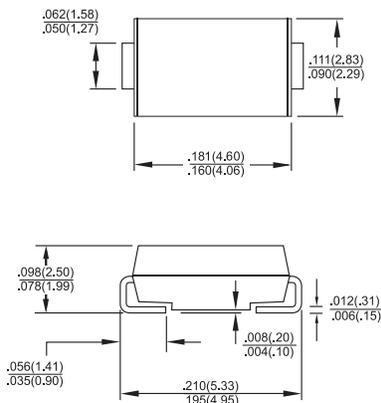




### Features

- ✦ For surface mounted application
- ✦ Easy pick and place
- ✦ Metal to silicon rectifier, majority carrier conduction
- ✦ Low power loss, high efficiency
- ✦ High current capability, low VF
- ✦ High surge current capability
- ✦ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ✦ Epitaxial construction
- ✦ High temperature soldering: 260°C / 10 seconds at terminals
- ✦ High reliability grade (AEC Q101 qualified)



### Mechanical Data

- ✦ Case: JEDEC SMA/DO-214AC Molded plastic
- ✦ Terminals: Pure tin plated, lead free
- ✦ Polarity: Indicated by cathode band
- ✦ Packaging: 12mm tape per EIA STD RS-481
- ✦ Weight: 0.066 gram

Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating 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%

Type Number	Symbol	SS 12	SS 13	SS 14	SS 15	SS 16	SS 19	SS 110	SS 115	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	63	70	105	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	90	100	150	V
Maximum Average Forward Rectified Current at $T_L$ (See Fig. 1)	$I_{(AV)}$	1.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	30								A
Maximum Instantaneous Forward Voltage (Note 1) IF= 1.0A @ 25°C @ 100°C	$V_F$	0.5 0.4		0.75 0.65		0.80 0.70		0.95 0.85		v
Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	$I_R$	0.4				0.1				mA
		10		5.0		2.0				mA
Maximum DC Reverse Current at $V_R=33\text{V}$ & $T_A=50^\circ\text{C}$	$HT_{IR}$	-				5.0				uA
Typical Junction Capacitance (Note 3)	$C_j$	50								pF
Typical Thermal Resistance ( Note 2 )	$R_{\theta JL}$	28								°C/W
	$R_{\theta JA}$	88								
Operating Temperature Range	$T_J$	-65 to +125				-65 to +150				°C
Storage Temperature Range	$T_{STG}$	-65 to +150								°C

- Notes:
1. Pulse Test with PW=300 usec, 1% Duty Cycle
  2. Measured on P.C.Board with 0.2" x 0.2" (5.0mm x 5.0mm) Copper Pad Areas.
  3. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

## RATINGS AND CHARACTERISTIC CURVES (SS12 THRU SS115)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

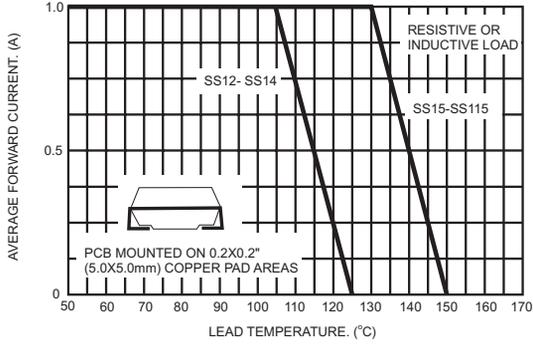


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

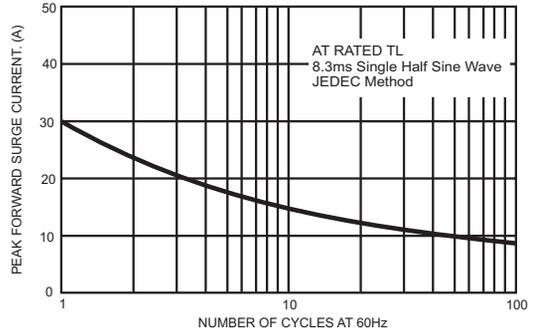


FIG.3- TYPICAL FORWARD CHARACTERISTICS

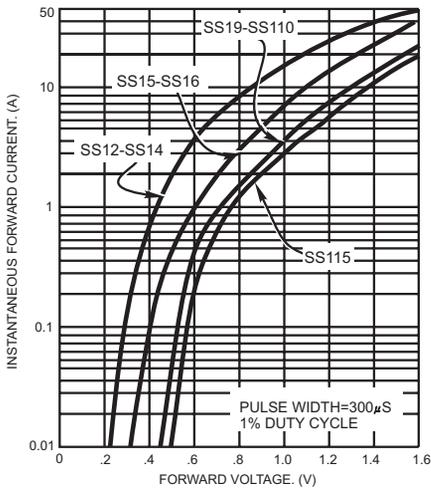


FIG.4- TYPICAL REVERSE CHARACTERISTICS

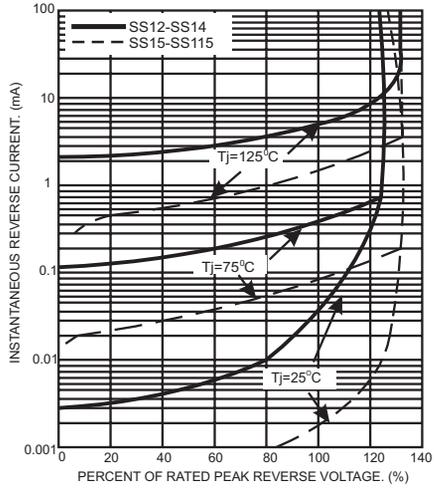


FIG.5- TYPICAL JUNCTION CAPACITANCE

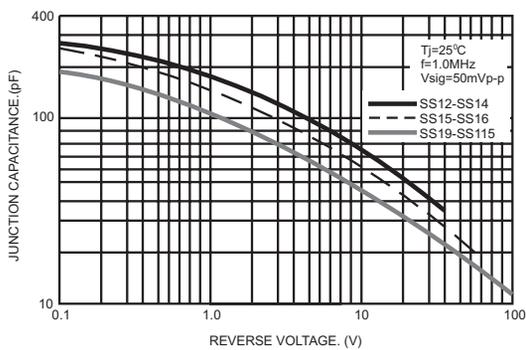
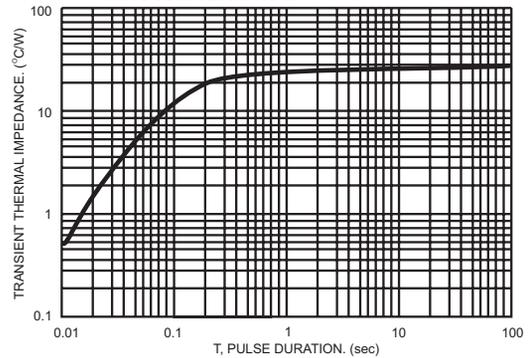


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



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