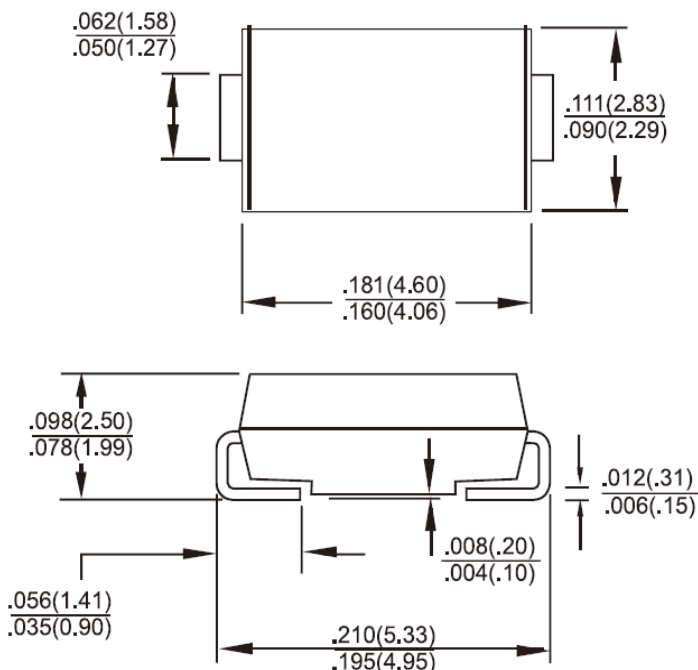


**1.0AMP Surface Mount Schottky Barrier Rectifier  
SMA/DO-214AC**

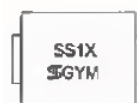
**RoHS  
COMPLIANCE**

**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 Classigation 94V-0
- ✧ Epitaxial construction
- ✧ High temperature soldering guaranteed: 260 °C /10s at terminals
- ✧ High reliability grade (ACE-Q101 qualified)
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode


**Mechanical Data**

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

**Dimensions in inches and (millimeters)**
**Marking Diagram**


- SS1X = Specific Device Code
- G = Green Compound
- Y = Year
- M = Work Month

**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	Unit
Maximum Repetitive 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	$I_{F(AV)}$	1								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) @ 1 A @ 25 °C @ 1 A @ 100 °C	$V_F$	0.5 0.4		0.75 0.65		0.80 0.70		0.95 0.85		V
Maximum Reverse Current @ Rated VR $T_A=25\text{ °C}$ $T_A=100\text{ °C}$ $T_A=125\text{ °C}$	$I_R$	0.4				0.1				mA
		10		5		-				mA
		-		-		2				mA
Typical Junction Capacitance (Note 2)	$C_j$	50								pF
Typical Thermal Resistance	$R_{\theta JL}$	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

Note1: Pulse Test with PW=300u sec, 1% Duty Cycle

Note2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

## RATINGS AND CHARACTERISTIC CURVES (SS12 THRU SS115)

FIG.1 FORWARD CURRENT DERATING CURVE

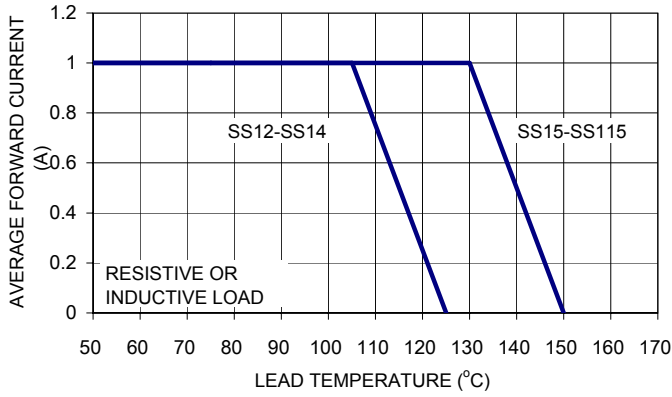


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

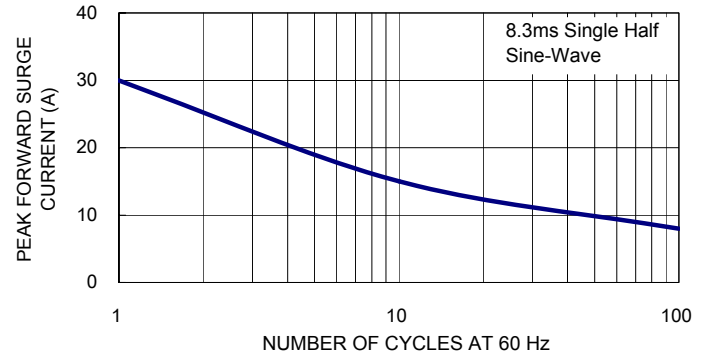


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

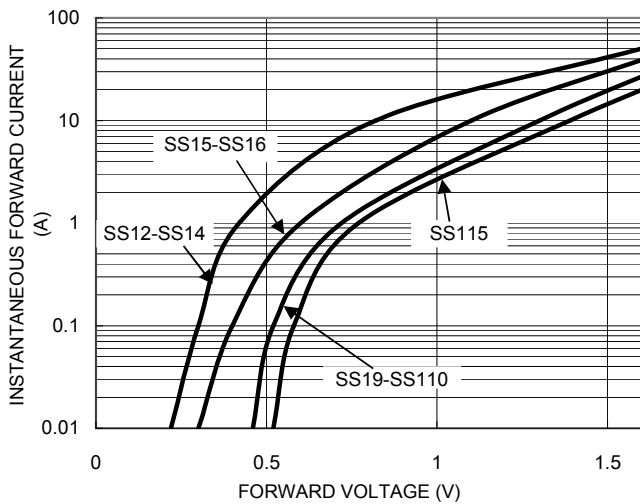


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

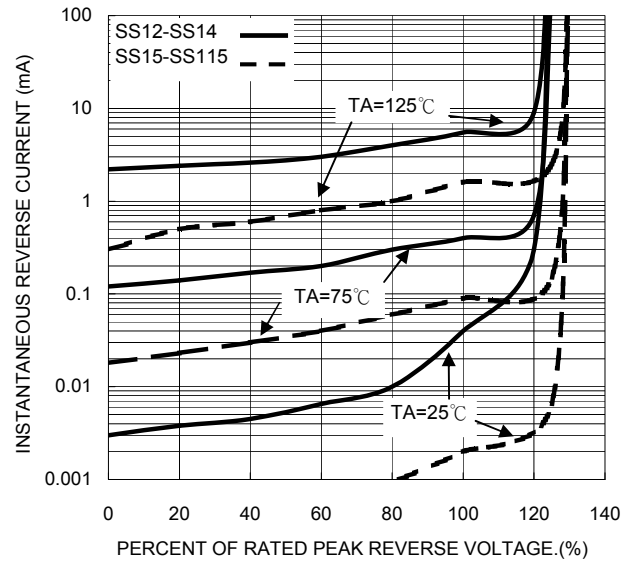


FIG. 5 TYPICAL JUNCTION CAPACITANCE

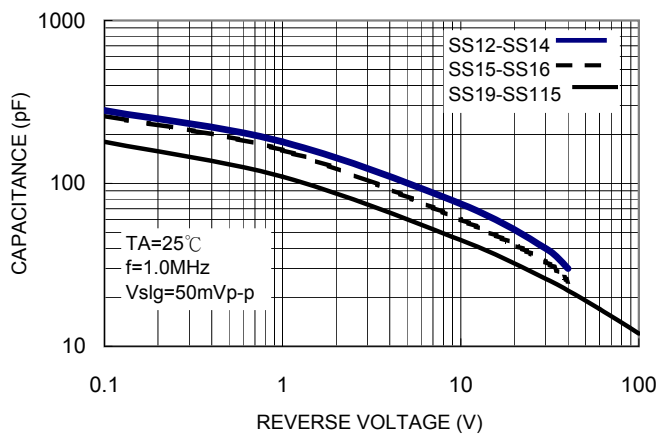


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE

