



RoHS
COMPLIANCE



SS12 - SS115

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

Features

- ✧ UL Recognized File # E-326243
- ✧ 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 Classsification 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

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

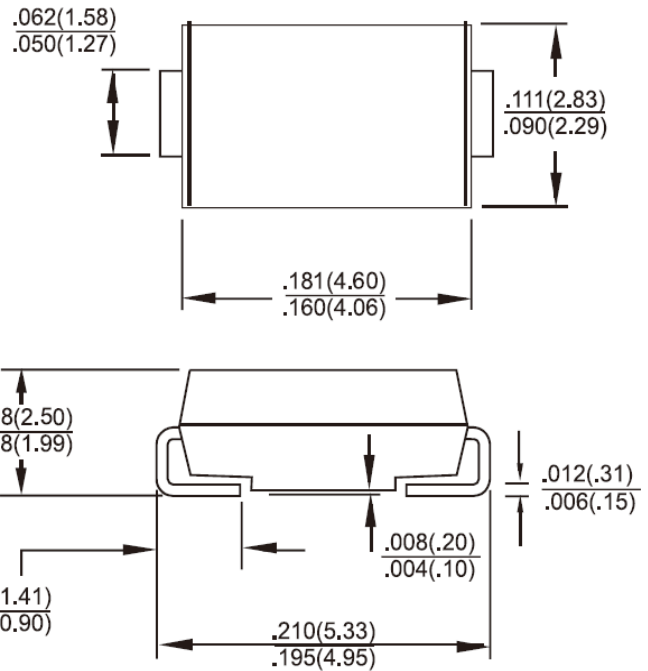
For capacitive load, derate current by 20%

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)}	1.0								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) @ 1.0A @ 25°C @ 1.0A @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 °C T _A =100°C T _A =125 °C	I _R	0.4					0.1			mA
		10			5		-		mA	
		-			-		2		mA	
Typical Junction Capecitance (Note 2)	C _j	50								pF
Typical Thermal Resistance (Note 3)	R _{θJL}	28								°C/W
	R _{θJA}	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

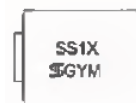
Note2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

Note3: Mount on Cu-Pad Size 5mm × 5mm on P.C.B.



Dimensions in inches and (millimeters)

Marking Diagram



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

RATINGS AND CHARACTERISTIC CURVES (SS12 THRU SS115)

FIG.1 FORWARD CURRENT DERATING CURVE

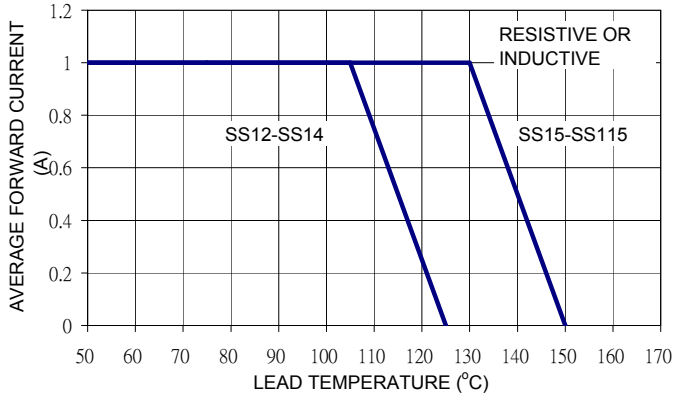


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

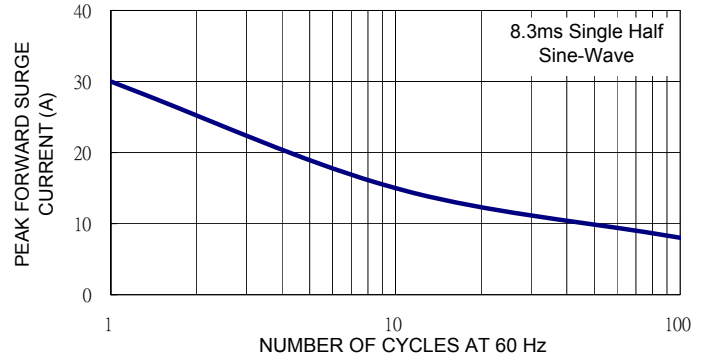


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

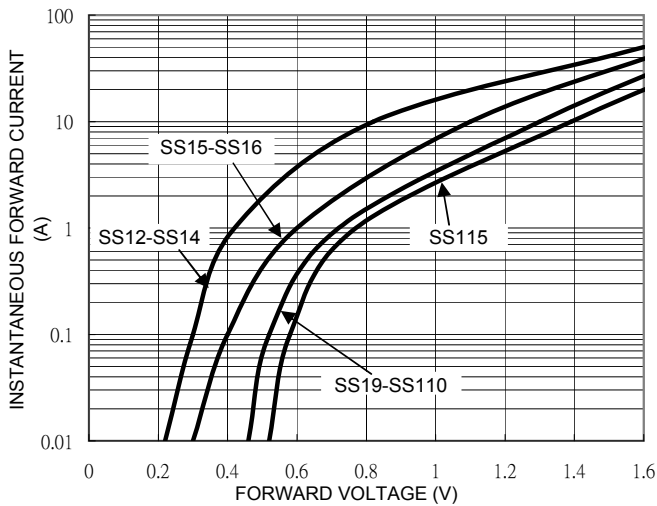


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

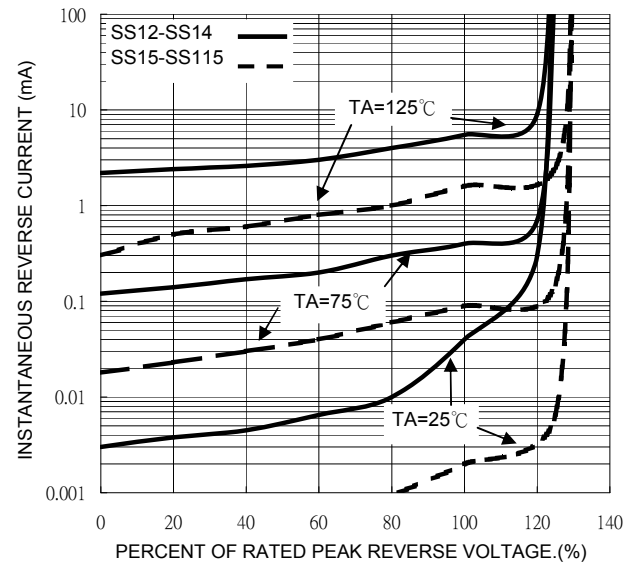


FIG. 5 TYPICAL JUNCTION CAPACITANCE

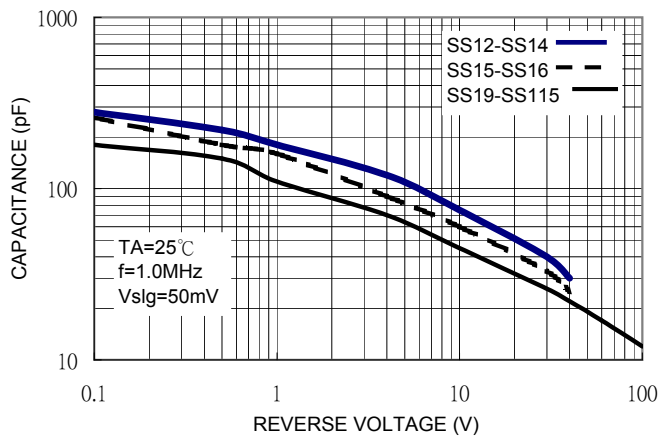
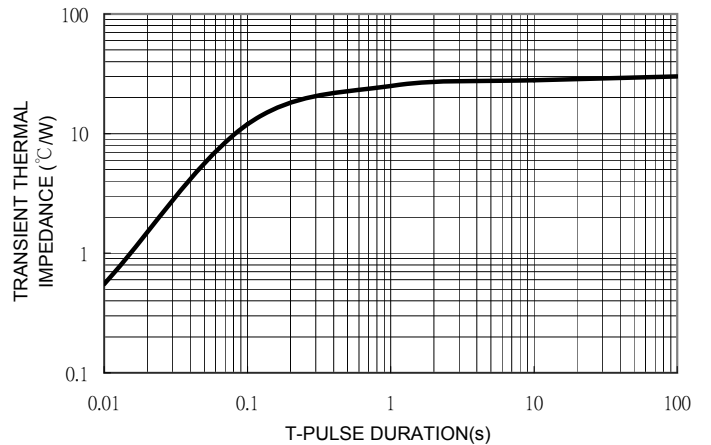


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE



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