



SS12 - SS115

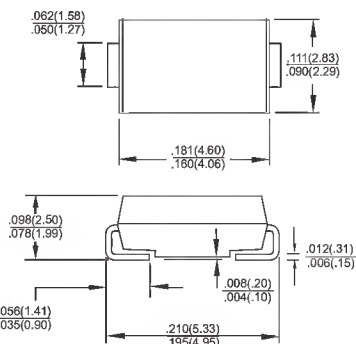
1.0 AMP. Surface Mount Schottky Barrier Rectifiers SMA/DO-214AC

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)
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

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)

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	Units
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	50	60	90	100	150	V
Maximum RMS Voltage	VRMS	14	21	28	35	42	63	70	105	V
Maximum DC Blocking Voltage	VDC	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 °C at Rated DC Blocking Voltage @ T _A =125 °C	I _R	0.4				0.1				mA
		10		5.0		2.0				mA
Maximum DC Reverse Current at VR=33V & T _A =50 °C	HTIR	-				5.0				uA
Typical Junction Capacitance (Note 3)	C _j	50								pF
Typical Thermal Resistance (Note 2)	R _{θJA} R _{θJA}					28 88				°C/W
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

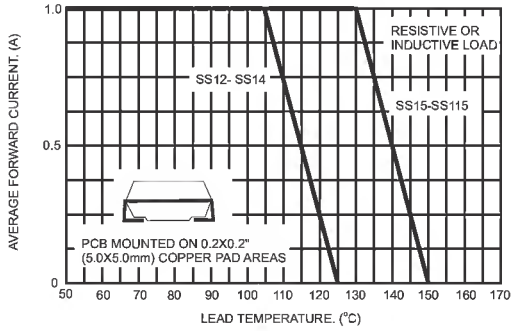


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

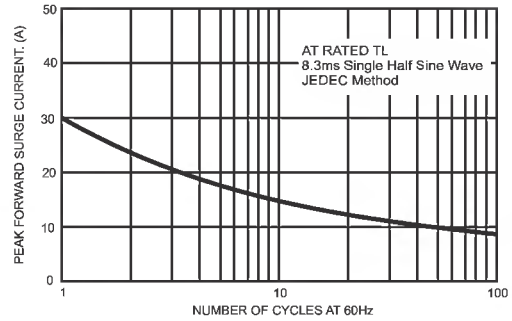


FIG.3- TYPICAL FORWARD CHARACTERISTICS

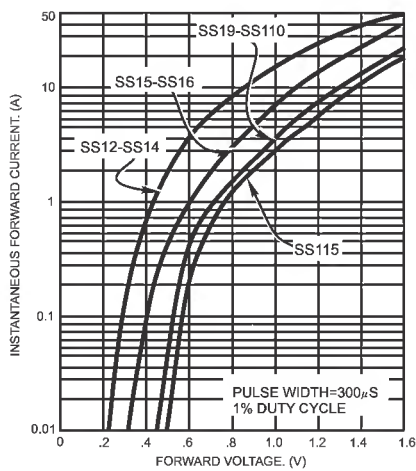


FIG.4- TYPICAL REVERSE CHARACTERISTICS

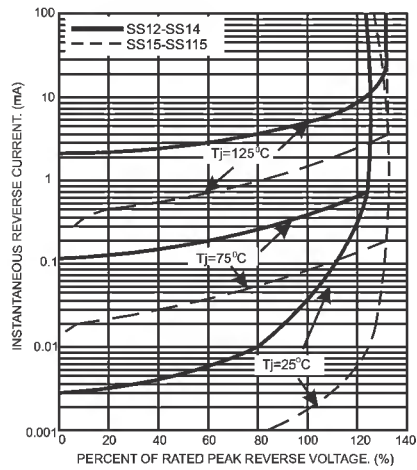


FIG.5- TYPICAL JUNCTION CAPACITANCE

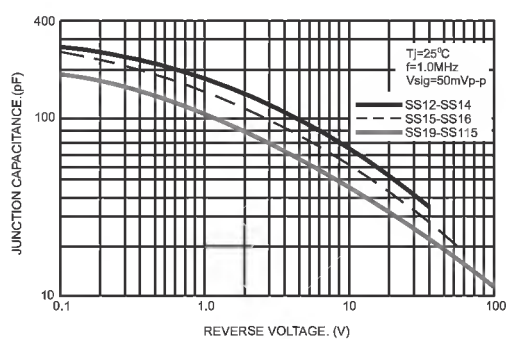


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

