



SS12 THRU SS110

1.0 AMP. Surface Mount Schottky Barrier Rectifiers



Voltage Range
20 to 100 Volts
Current
1.0 Ampere

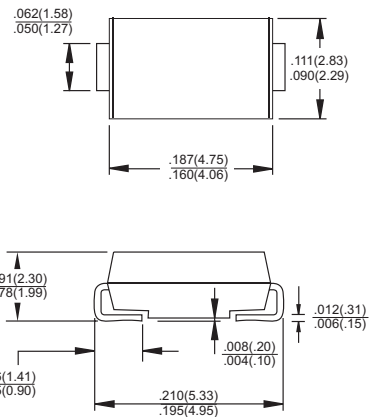
Features

- ✧ For surface mounted application
- ✧ Metal to silicon rectifier, majority carrier conduction
- ✧ Low forward voltage drop
- ✧ Easy pick and place
- ✧ High surge current capability
- ✧ Plastic material used carriers Underwriters Laboratory Classification 94V-O
- ✧ Epitaxial construction
- ✧ High temperature soldering: 260°C/ 10 seconds at terminals

Mechanical Data

- ✧ Case: Molded plastic
- ✧ Terminals: Solder plated
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 12mm tape per EIA STD RS-481
- ✧ Weight: 0.064 gram

SMA/DO-214AC



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	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	90	100	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	63	70	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	90	100	V
Maximum Average Forward Rectified Current at T _J (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) @ 1.0A	V _F	0.5			0.75		0.80		V
Maximum DC Reverse Current @ T _A =25°C at Rated DC Blocking Voltage @ T _A =100°C	I _R	0.4					0.05		mA
		10			5.0		0.5		mA
Maximum DC Reverse Current at VR=33V & T _A =50°C	HT _{IR}	-				5.0			uA
Typical Junction Capacitance (Note 3)	C _j	50							pF
Typical Thermal Resistance (Note 2)	R θ _{JL}	28							°C/W
	R θ _{JA}	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 $PW = 300 \mu\text{sec}$, 1% Duty Cycle

2. Measured on P.C.Board with 0.2×0.2 " (5.0 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 SS110)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

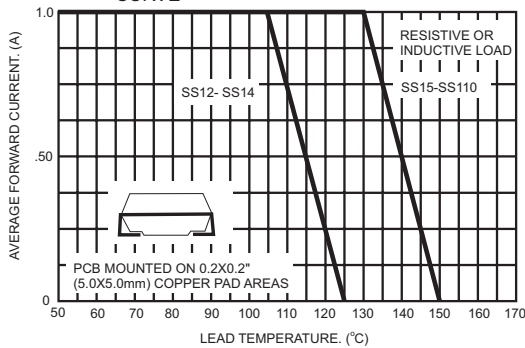


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

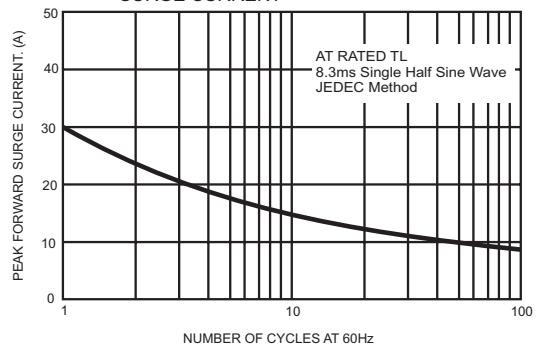


FIG.3- TYPICAL FORWARD CHARACTERISTICS

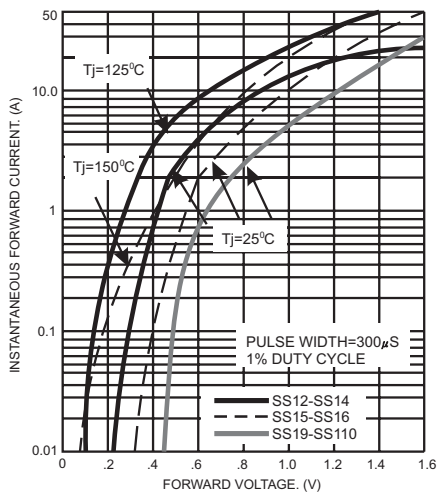


FIG.4- TYPICAL REVERSE CHARACTERISTICS

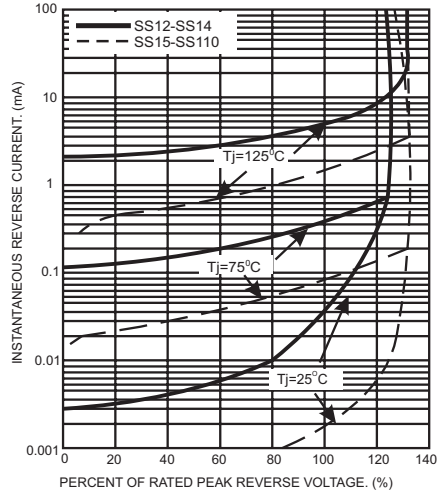


FIG.5- TYPICAL JUNCTION CAPACITANCE

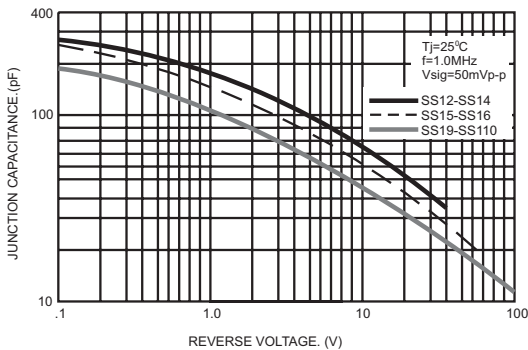


FIG.6- TYPICAL CAPACITANCE

