



# SS12 THRU SS16

**1.0 AMP. SURFACE MOUNT  
SCHOTTKY BARRIER  
RECTIFIERS**

Voltage Range  
20 to 60 Volts  
Current  
1.0 Amperes

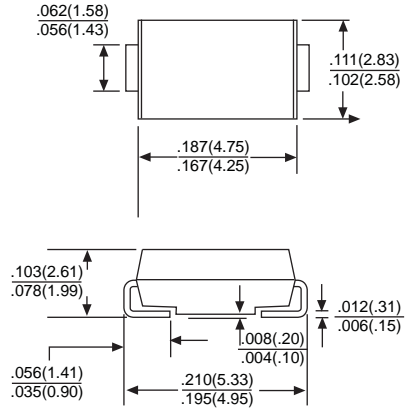
## SMA/DO-214AC

### 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:  
250°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



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Type Number		SS12	SS13	SS14	SS15	SS16	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	V
Maximum Average Forward Rectified Current at T <sub>L</sub> (See Fig.1)	I <sub>F(AV)</sub>	1.0					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	40					A
Maximum Instantaneous Forward Voltage (Note 1) @ 1.0A	V <sub>F</sub>	0.5		0.75			V
Maximum DC Reverse Current @ T <sub>A</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>A</sub> = 100°C	I <sub>R</sub>	0.5					mA
		10			5.0		
Typical Thermal Resistance	R <sup>*</sup> <sub>JL</sub> R <sub>JA</sub>	28 88					°C/W °C/W
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +125					°C
Storage Temperature Range	T <sub>STG</sub>	-55 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" (5.0 x 5.0mm) Copper Pad Areas.

# RATING AND CHARACTERISTIC CURVES SS12 THRU SS16



FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

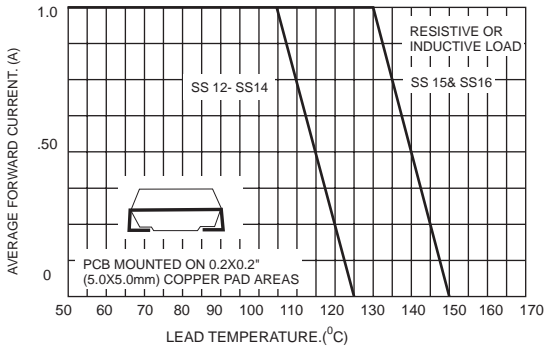


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

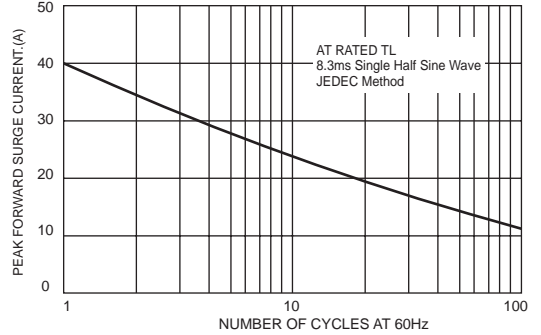


FIG.3-TYPICAL FORWARD CHARACTERISTICS

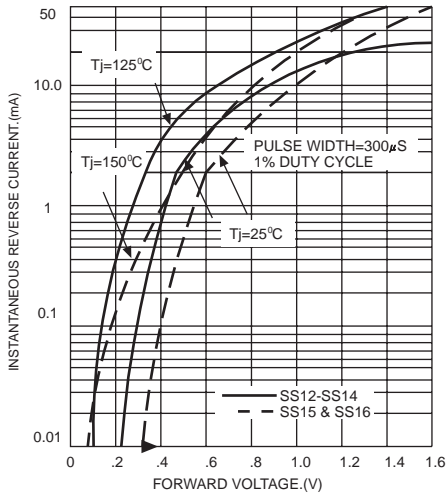


FIG.4-TYPICAL REVERSE CHARACTERISTICS

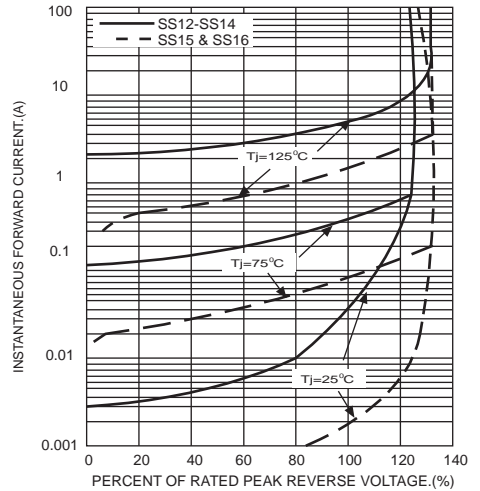


FIG.5-TYPICAL JUNCTION CAPACITANCE

