

# SS12 THRU S100

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 to 100 Volts CURRENT - 1.0 Ampere

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier majority carrier conduction
- Low power loss, High efficiency
- High current capability, low  $V_F$
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering:  
260 °C/10 seconds at terminals

### MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic

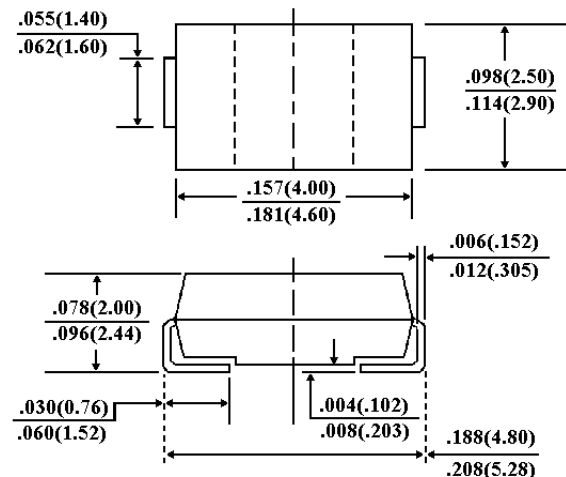
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode

Standard packaging: 12mm tape (EIA-481)

Weight: 0.002 ounce, 0.064 gram

### SMA/DO-214AC



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Resistive or inductive load.

	SYMBOLS	SS12	SS13	SS14	SS15	SS16	SS18	SS19	S100	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	90	100	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	64	71	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	90	100	Volts
Maximum Average Forward Rectified Current at T <sub>L</sub> (See Figure 1)	I <sub>(AV)</sub>	1.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	30.0								Amps
Maximum Instantaneous Forward Voltage at 1.0A (Note 1)	V <sub>F</sub>	0.5			0.70		0.85			Volts
Maximum DC Reverse Current T <sub>A</sub> =25 ℄J (Note 1)	I <sub>R</sub>	0.5								mA
At Rated DC Blocking Voltage T <sub>A</sub> =100 ℄J		20.0								
Maximum Thermal Resistance (Note 2)	R <sub>θKJL</sub> R <sub>θKJA</sub>	28 88								℄J/W
Operating Junction Temperature Range	T <sub>J</sub>	-50 to +125								℄J
Storage Temperature Range	T <sub>STG</sub>	-50 to +150								℄J

### NOTES:

1. Pulse Test with PW=300 µsec, 2% Duty Cycle.
2. Mounted on P.C.Board with 5.0mm<sup>2</sup> (.013mm thick) copper pad areas.

## RATING AND CHARACTERISTIC CURVES

### SS12 THRU S100

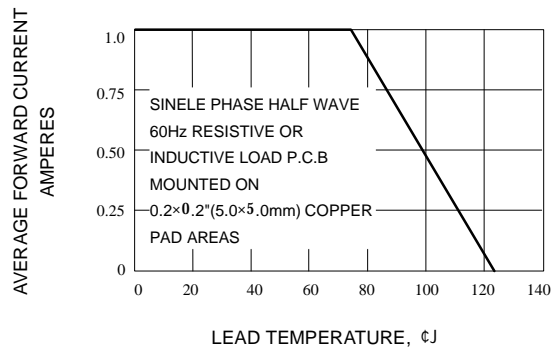


Fig. 1-FORWARD CURRENT DERATING CURVE

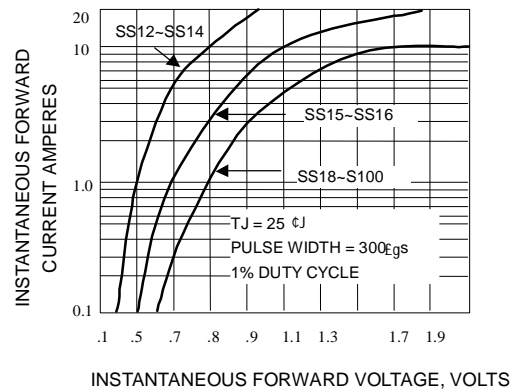


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

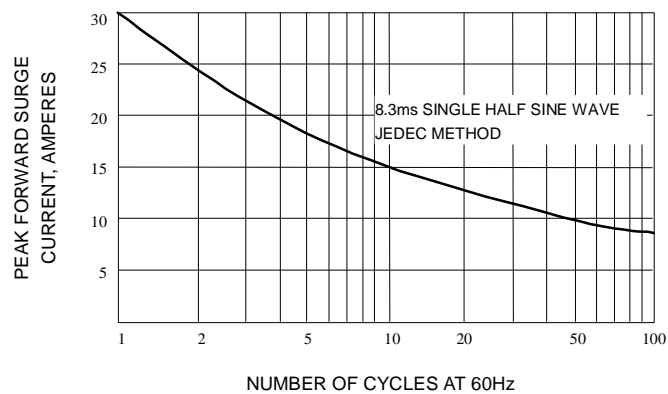


Fig. 3-MAXIMUM NON-REPETITIVE SURGE CURRENT

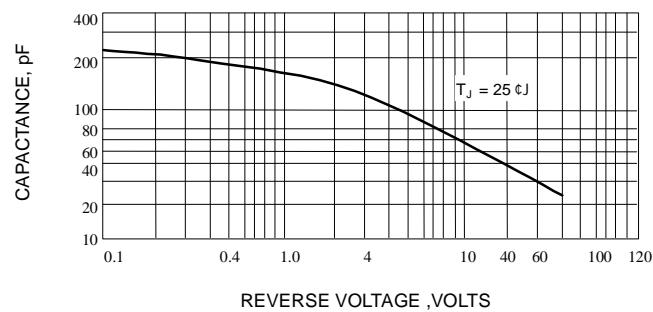


Fig. 4-TYPICAL JUNCTION CAPACITANCE