

## SS12 THRU S100

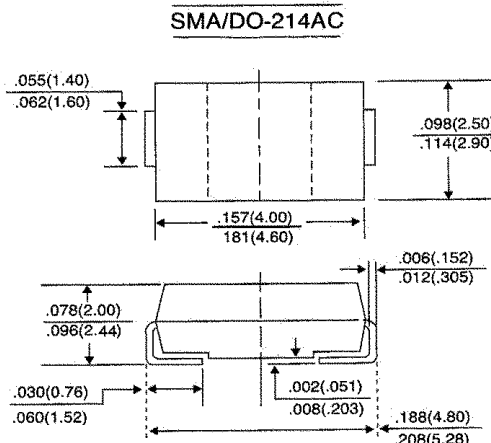
**SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**  
**VOLTAGE - 20 TO 100 Volts    CURRENT - 1.0 Ampere**

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- 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 guaranteed: 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 ounces 0.064 gram



### 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	$V_{RRM}$	20	30	40	50	60	80	90	100	Volts
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	64	71	Volts
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	90	100	Volts
Maximum Average Forward Rectified Current at $T_L$ (See Figure 1)	$I_{(AV)}$	1.0								Amps
Peak forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30.0								Amps
Maximum Instantaneous Forward Voltage at 1.0A (NOTE 1)	$V_F$	0.50		0.70		0.85			Volts	
Maximum DC Reverse Current (NOTE 1) $T_A = 25^\circ C$ at Rated DC Blocking Voltage $T_A = 100^\circ C$	$I_R$					0.5		20.0		mA
Maximum Thermal Resistance (NOTE 2)	$Re_{JL}$ $Re_{JA}$					28 88				$^\circ C/W$
Operating Junction Temperature Range	$T_J$	-50 to +125								$^\circ C$
Storage Temperature Range	$T_{STG}$	-50 to +150								$^\circ C$

**NOTES:**

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

RATING AND CHARACTERISTIC CURVES  
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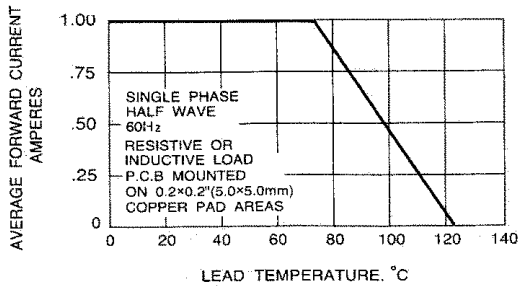


Fig. 1 - FORWARD CURRENT DERATING CURVE

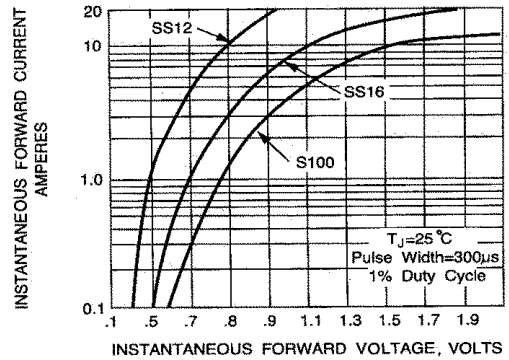


Fig. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

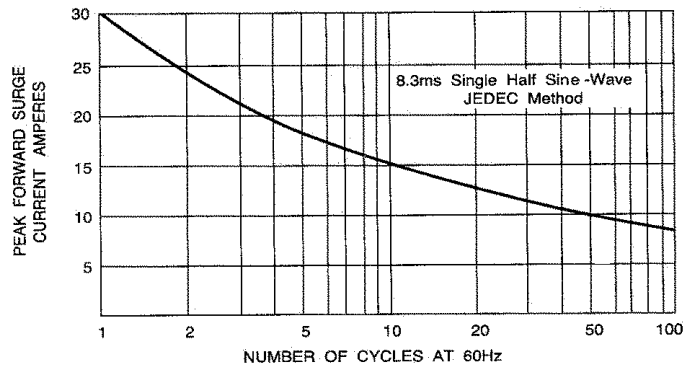


Fig. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

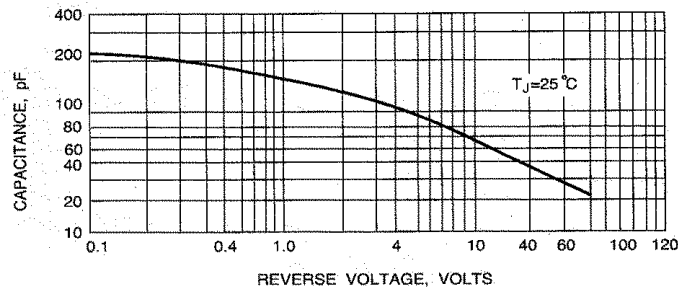


Fig. 4 - TYPICAL JUNCTION CAPACITANCE