

# SS12 THRU SS110

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 100 V

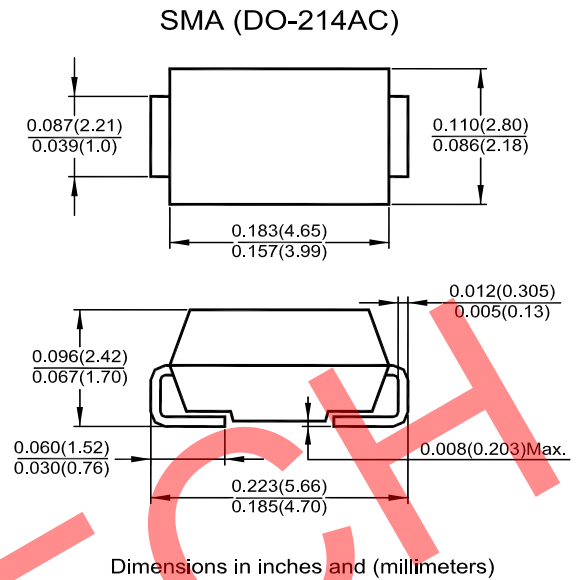
Forward Current - 1 A

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Built-in strain relief, ideal for automated placement
- Low power loss, high efficiency.
- High forward surge current capability

### Mechanical Data

- **Case:** SMA (DO-214AC) molded plastic body
- **Terminals:** leads solderable per MIL-STD-750, Method 2026
- **Polarity:** color band denotes cathode end



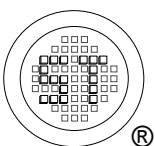
### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	SS12	SS13	SS14	SS15	SS16	SS18	SS110	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1							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 at 1 A	$V_F$	0.55		0.75		0.85		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.5							mA
$T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$		20							
Typical Junction Capacitance <sup>1)</sup>	$C_j$	110							pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	88							°C/W
Operating Junction Temperature Range	$T_j$	- 55 to + 125							°C
Storage Temperature Range	$T_{stg}$	- 55 to + 150							°C

<sup>1)</sup> Measured at 1MHz and applied reverse voltage of 4 V D.C.

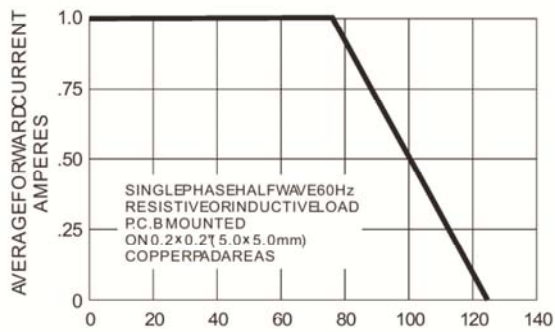
<sup>2)</sup> P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.



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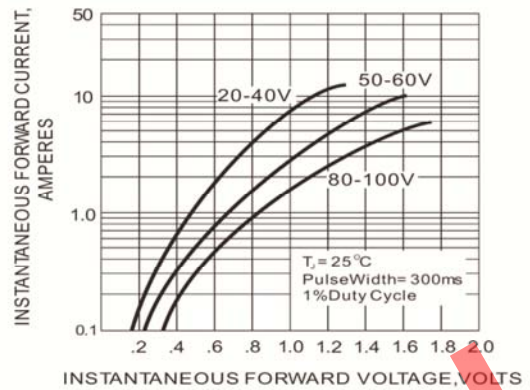


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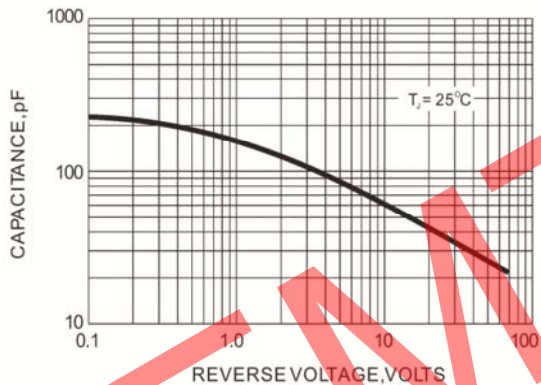


LEAD TEMPERATURE, °C  
**FORWARD CURRENT DERATING CURVE**

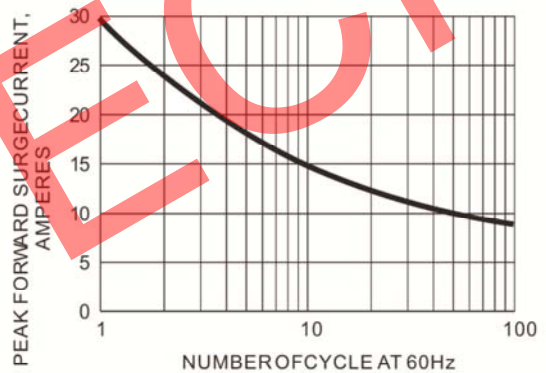
SINGLE PHASE HALF WAVE 60Hz  
 RESISTIVE OR INDUCTIVE LOAD  
 PCB MOUNTED  
 ON 0.2x0.2 (5.0x5.0mm)  
 COPPER PAD AREAS



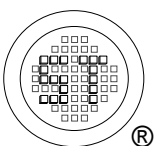
INSTANTANEOUS FORWARD VOLTAGE, VOLTS  
**TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**



REVERSE VOLTAGE, VOLTS  
**TYPICAL JUNCTION CAPACITANCE**



NUMBER OF CYCLE AT 60Hz  
**MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



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