

# SS12 THRU SS110

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 100 V

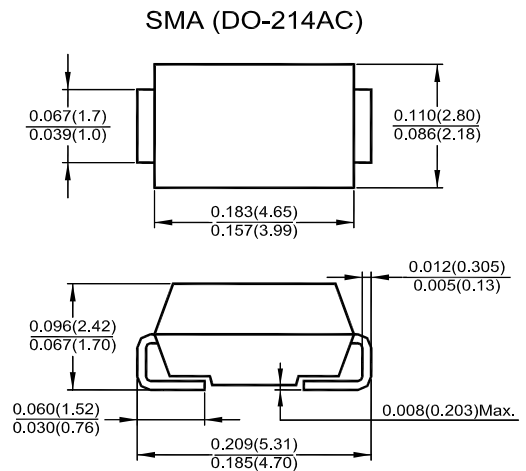
Forward Current - 1 A

### 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



Dimensions in inches and (millimeters)

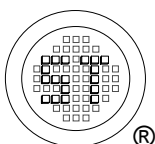
### Maximum Ratings and Electrical Characteristics

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	$I_{(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	40							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 $T_A = 25\text{ }^\circ\text{C}$ $T_A = 100\text{ }^\circ\text{C}$	$I_R$	6			5			mA	
Typical Junction Capacitance <sup>1)</sup>	$C_J$	110			90			pF	
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	88							$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	- 65 to + 125			- 65 to + 150			$^\circ\text{C}$	
Storage Temperature Range	$T_S$	- 65 to + 150							$^\circ\text{C}$

<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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Dated : 11/04/2008

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FIG.1-FORWARD CURRENT DERATING CURVE

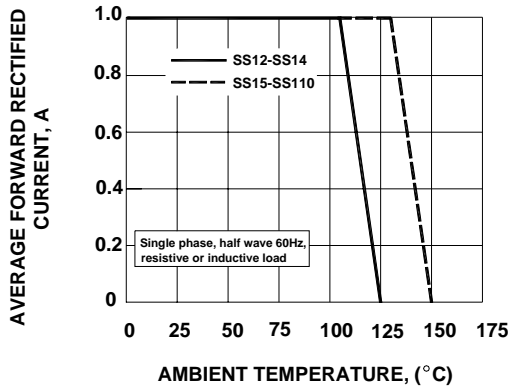


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

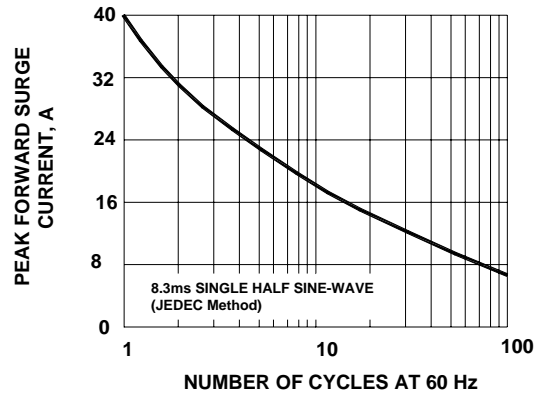


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

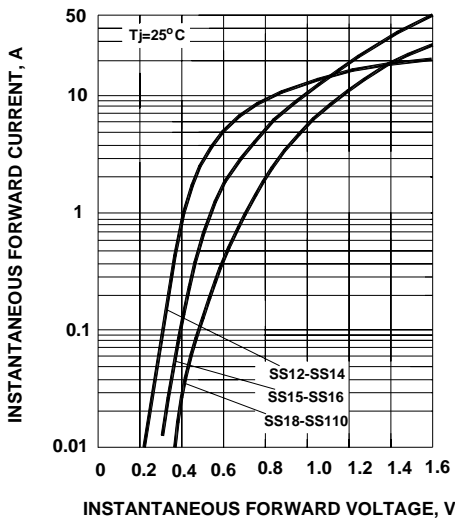


Fig.4- TYPICAL REVERSE CHARACTERISTICS

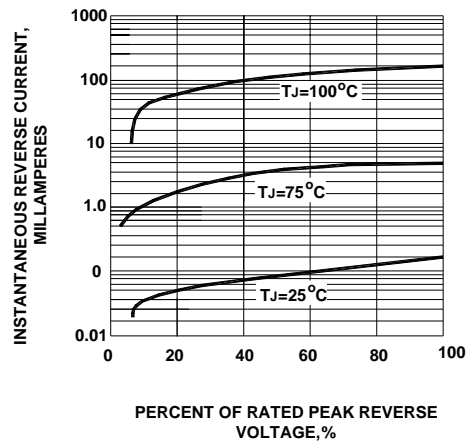


Fig.5- TYPICAL JUNCTION CAPACITANCE

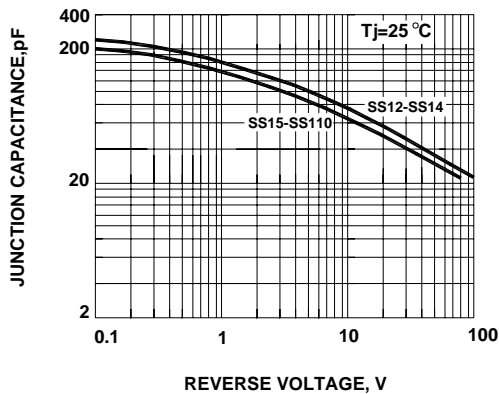
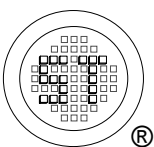
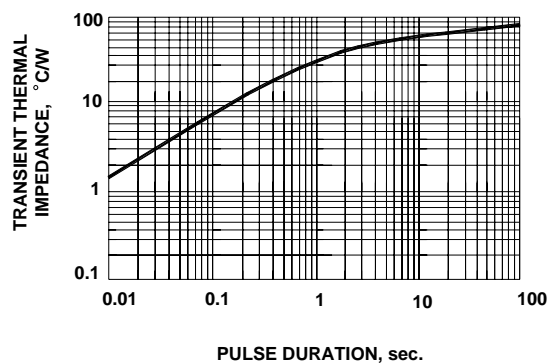


Fig.6- TYPICAL TRANSIENT THERMAL IMPEDANCE



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ISO/TS 16949 : 2002 Certificate No. 05103  
 ISO 14001:2004 Certificate No. 7116  
 ISO 9001:2000 Certificate No. 0506098

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