

SS12 THRU SS110

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 100 V

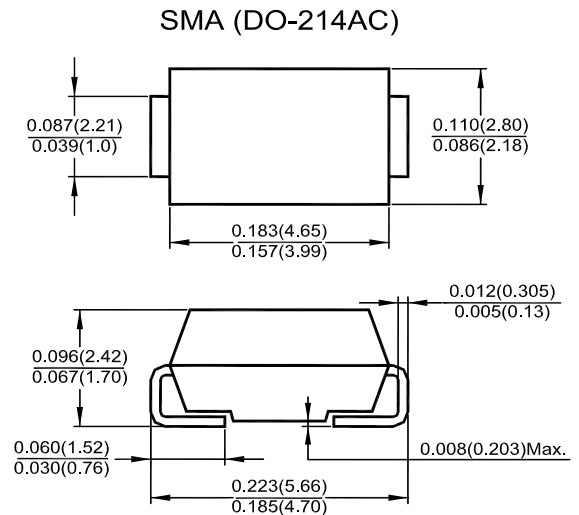
Forward Current - 1 A

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)

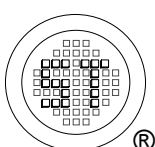
Maximum Ratings and Electrical Characteristics

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	$I_{F(AV)}$	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	I_R	0.5							mA
$T_a = 25\text{ }^\circ\text{C}$ $T_a = 100\text{ }^\circ\text{C}$		6		5					
Typical Junction Capacitance ¹⁾	C_j	110		90					pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	88							$^\circ\text{C/W}$
Operating Junction Temperature Range	T_j	- 65 to + 125			- 65 to + 150			$^\circ\text{C}$	
Storage Temperature Range	T_{stg}	- 65 to + 150							$^\circ\text{C}$

¹⁾ Measured at 1MHz and applied reverse voltage of 4 V D.C.

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



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FIG.1-FORWARD CURRENT DERATING CURVE

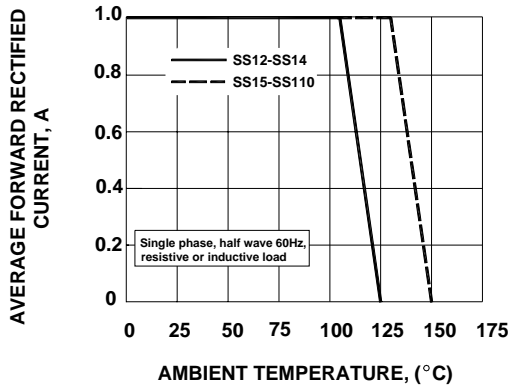


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

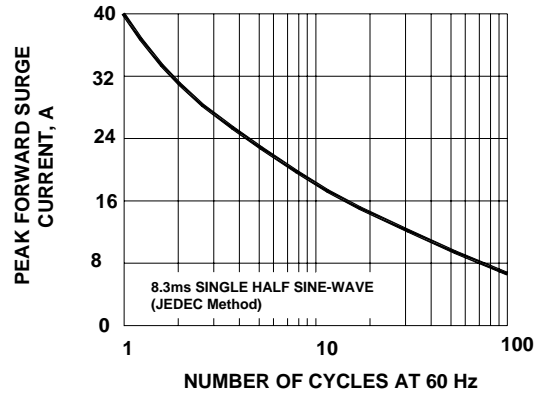


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

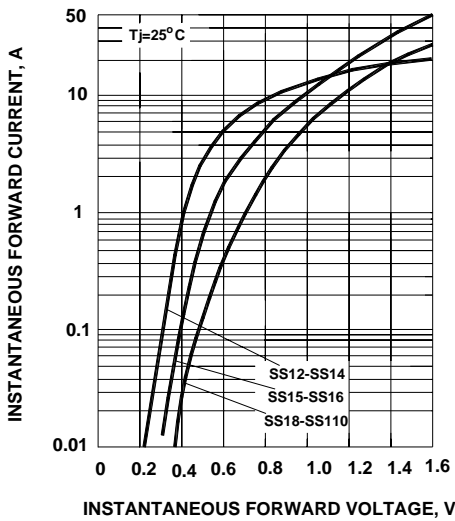


Fig.4- TYPICAL REVERSE CHARACTERISTICS

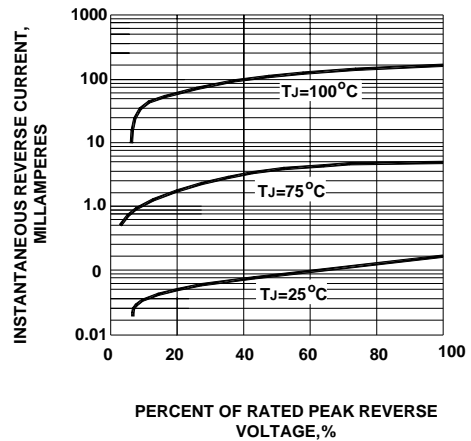


Fig.5- TYPICAL JUNCTION CAPACITANCE

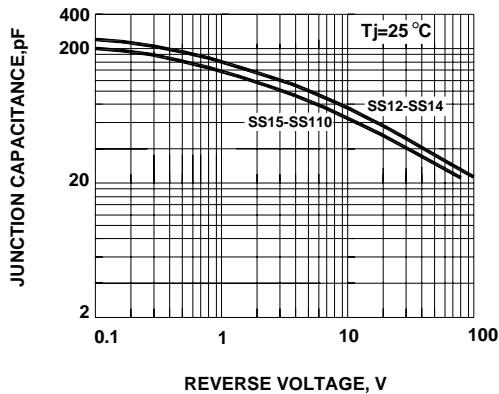
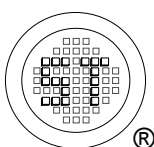
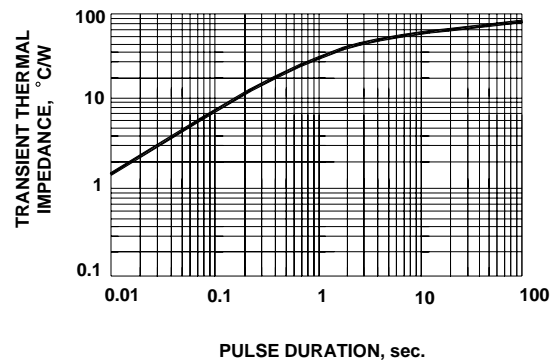


Fig.6- TYPICAL TRANSIENT THERMAL IMPEDANCE



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