

SS12 THRU SS110

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 100 V

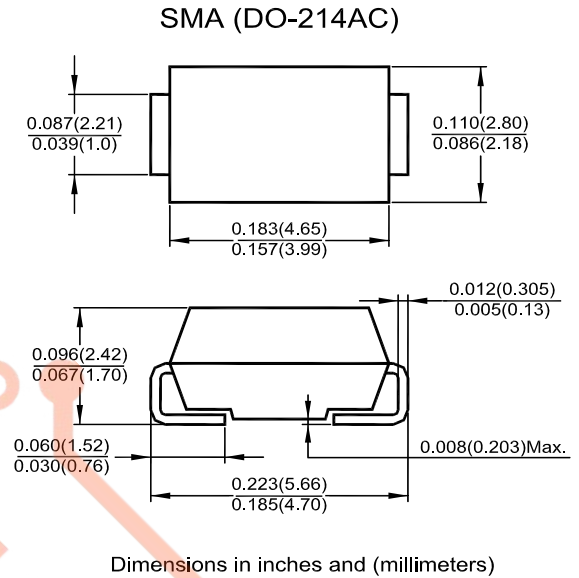
Forward Current - 1 A

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



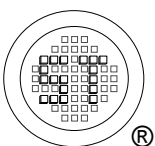
Maximum Ratings and Electrical Characteristics

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 $T_a = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 100^\circ\text{C}$	I_R	0.5							mA
		20							
Typical Junction Capacitance ¹⁾	C_j	110							pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	88							°C/W
Operating Junction Temperature Range	T_j	- 55 to + 125							°C
Storage Temperature Range	T_{stg}	- 55 to + 150							°C

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

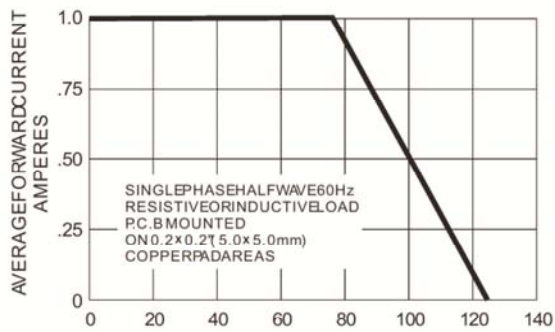
²⁾ P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.



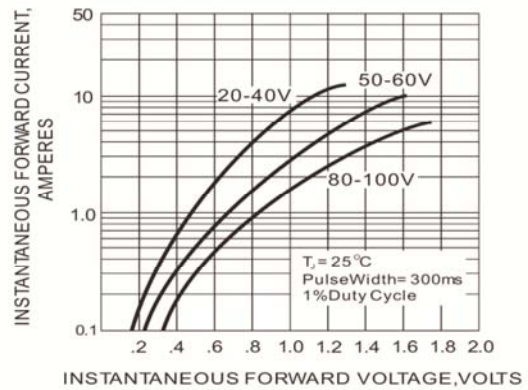
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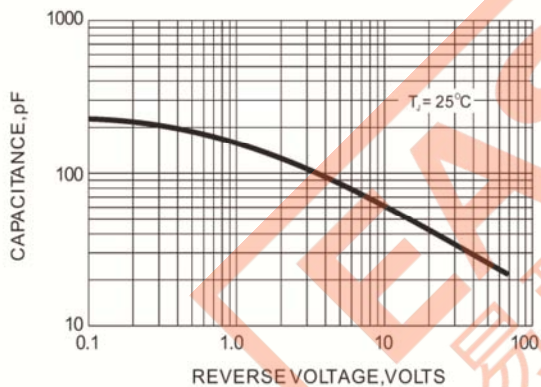
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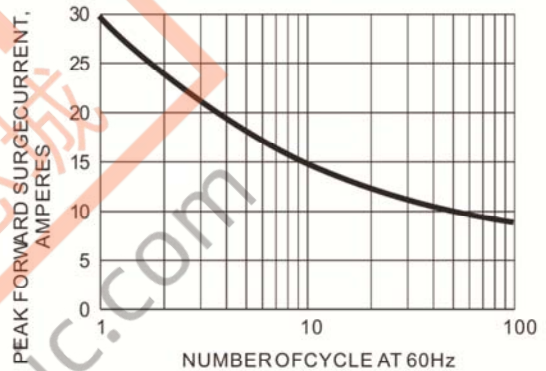
LEAD TEMPERATURE, °C
FORWARD CURRENT DERATING CURVE



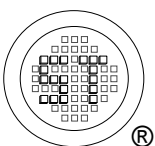
INSTANTANEOUS FORWARD CURRENT, AMPERES
 INSTANTANEOUS FORWARD VOLTAGE, VOLTS
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC



REVERSE VOLTAGE, VOLTS
TYPICAL JUNCTION CAPACITANCE



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



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