

SS32 THRU SS3A

SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 100 V

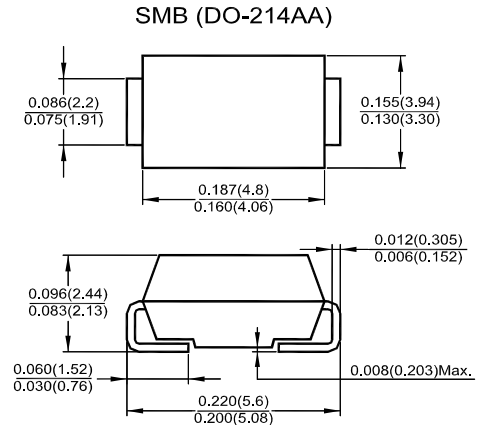
Forward Current - 3 A

Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- For surface mount applications
- Low power loss, high efficiency
- High current capability, low forward voltage drop.
- Low profile package
- Built-in strain relief, ideal for automated placement
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

Mechanical Data

- Case: SMB (DO-214AA), molded plastic body
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026
- Polarity: Color band denotes cathode end



Dimensions in inches and (millimeters)

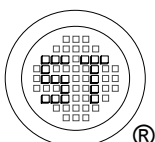
Absolute Maximum Ratings and Characteristics

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	SS32	SS33	SS34	SS35	SS36	SS38	SS3A	Units
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	57	71	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current at 0.375"(9.5 mm) Lead Length	$I_{F(AV)}$	3							A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	80							A
Maximum Instantaneous Forward Voltage at 3 A	V_F	0.55		0.75		0.85		V	
Maximum Reverse Current at Rated DC Blocking at Voltage	I_R	1.5							mA
at $T_A = 25\text{ }^\circ\text{C}$ at $T_A = 100\text{ }^\circ\text{C}$		20		10					
Typical Junction Capacitance ¹⁾	C_j	250		160			pF		
Typical Thermal Resistance ²⁾	$R_{\theta JA}$ $R_{\theta JL}$	55			17			$^\circ\text{C/W}$	
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 1 MHz and reverse voltage of 4 volts.

²⁾ P.C.B. mounted 0.55 X 0.55" (14 X 14 mm) copper pad areas.



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FIG.1-FORWARD CURRENT DERATING CURVE

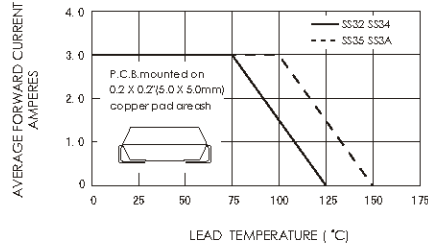


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

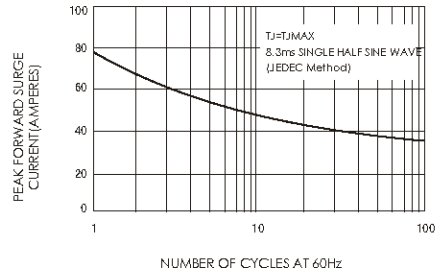


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

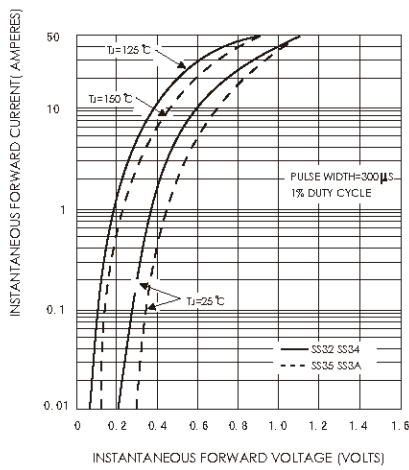


FIG.4-TYPICAL REVERSE CHARACTERISTICS

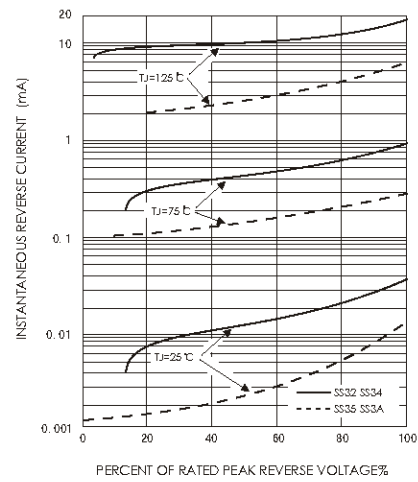


FIG.5-TYPICAL JUNCTION CAPACITANCE

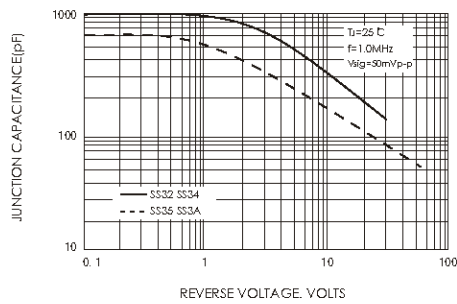
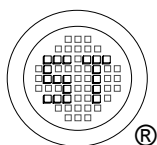
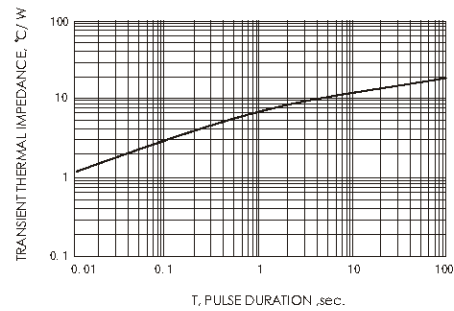


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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