SS32D THRU SS3AD

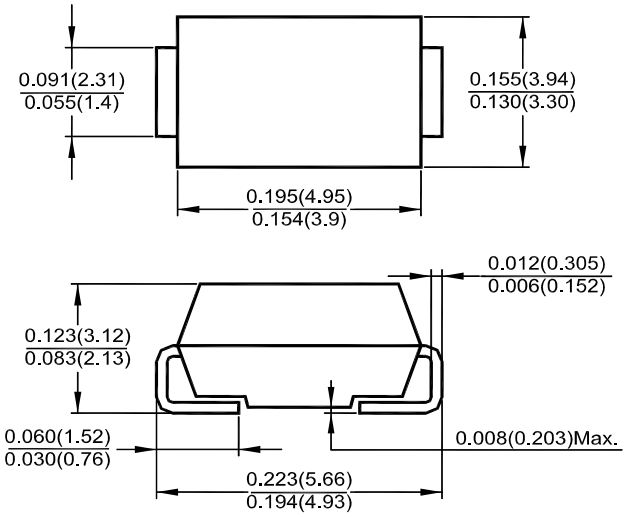
SCHOTTKY BARRIER RECTIFIERS

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

SMB (DO-214AA)



Dimensions in inches and (millimeters)

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

Absolute Maximum Ratings and Characteristics

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

Parameter	Symbols	SS32D	SS33D	SS34D	SS35D	SS36D	SS38D	SS3AD	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 at T_a = 25 °C	I_R	1.5							mA
Maximum Reverse Current at Rated DC Blocking at Voltage at T_a = 100 °C	I_R	20			10				mA
Typical Junction Capacitance [1]	C_j	250			160				pF
Typical Thermal Resistance [2]	$R_{\theta JA}$ $R_{\theta JL}$	55 17							°C/W
Operating Junction Temperature Range	T_j	- 65 to + 125			- 65 to + 150				°C
Storage Temperature Range	T_{stg}	- 65 to + 150							°C

[1] Measured at 1 MHz and reverse voltage of 4 V
[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

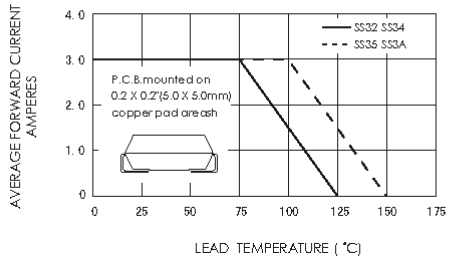

FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

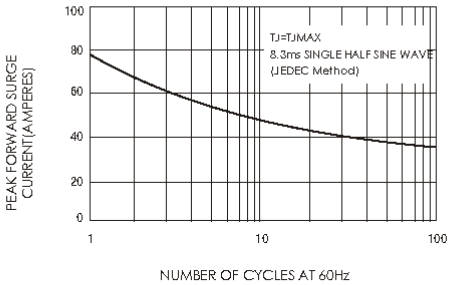

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

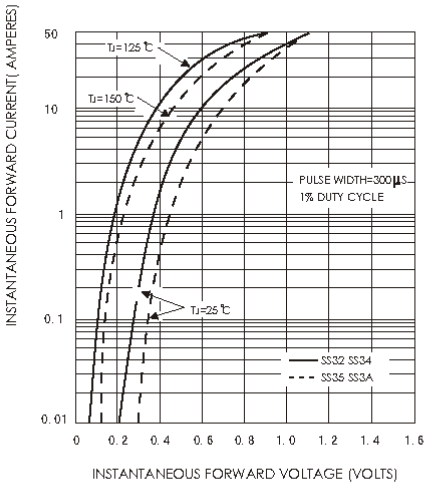

FIG.4-TYPICAL REVERSE CHARACTERISTICS

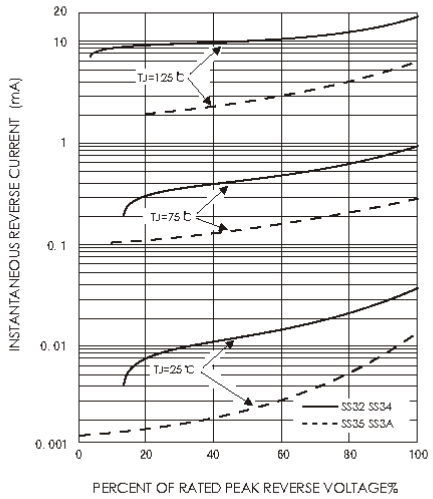

FIG.5-TYPICAL JUNCTION CAPACITANCE

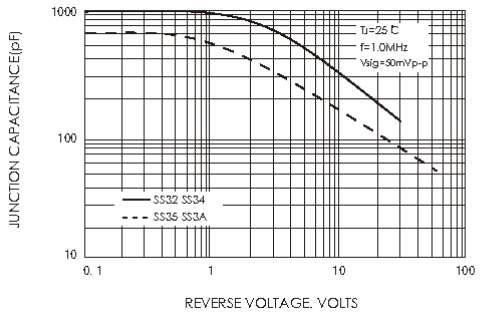

FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE