

# SS32D THRU SS3AD

## SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 100 V

Forward Current - 3 A

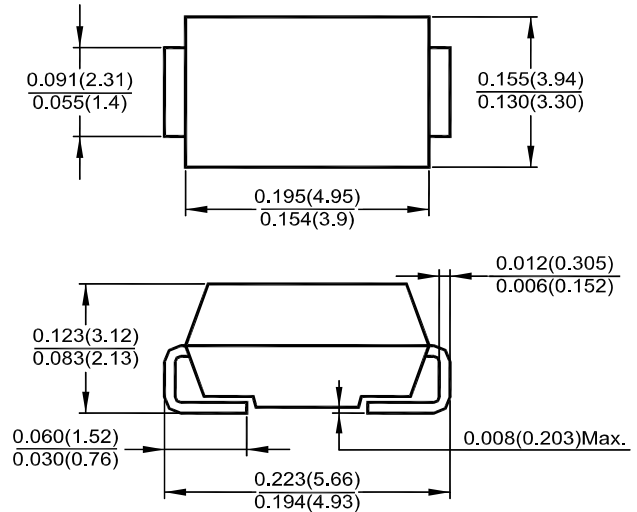
### Features

- 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

### 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

### SMB (DO-214AA)



Dimensions in inches and (millimeters)

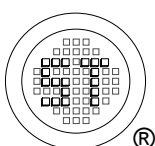
### Absolute Maximum Ratings and Characteristics

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	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	$I_R$	1.5							mA
at $T_a = 25\text{ }^\circ\text{C}$ at $T_a = 100\text{ }^\circ\text{C}$		20		10					
Typical Junction Capacitance <sup>1)</sup>	$C_j$	250		160			pF		
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$ $R_{\theta JL}$	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							$^\circ\text{C}$

<sup>1)</sup> Measured at 1 MHz and reverse voltage of 4 V

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



**SEMTECH ELECTRONICS LTD.**  
Subsidiary of Sino-Tech International (BVI) Limited



# SS32D THRU SS3AD

FIG.1-FORWARD CURRENT DERATING CURVE

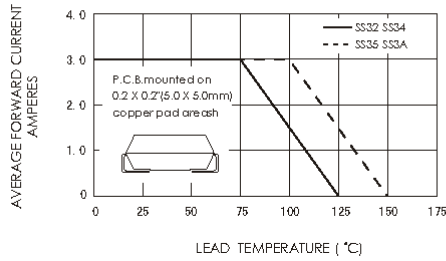


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

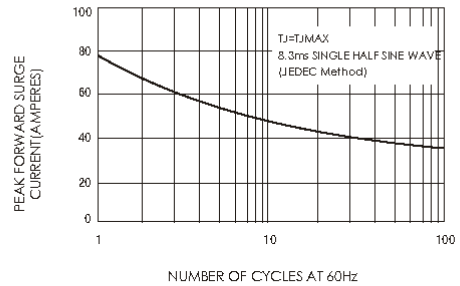


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

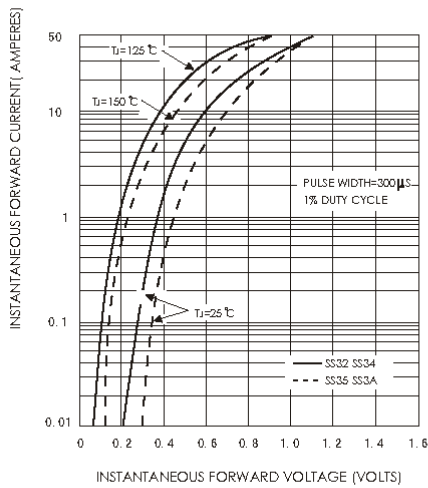


FIG.4-TYPICAL REVERSE CHARACTERISTICS

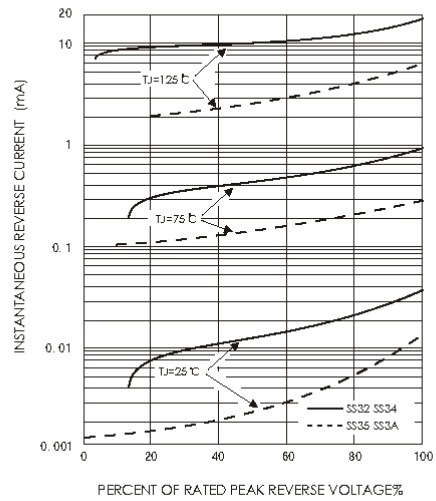


FIG.5-TYPICAL JUNCTION CAPACITANCE

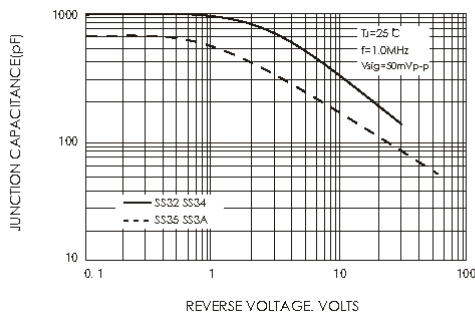
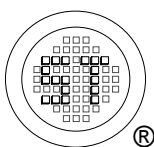
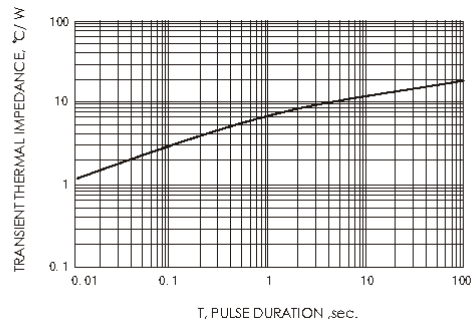


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



**SEMTECH ELECTRONICS LTD.**  
Subsidiary of Sino-Tech International (BVI) Limited

