

Standard Recovery Power Diodes



S2 Series



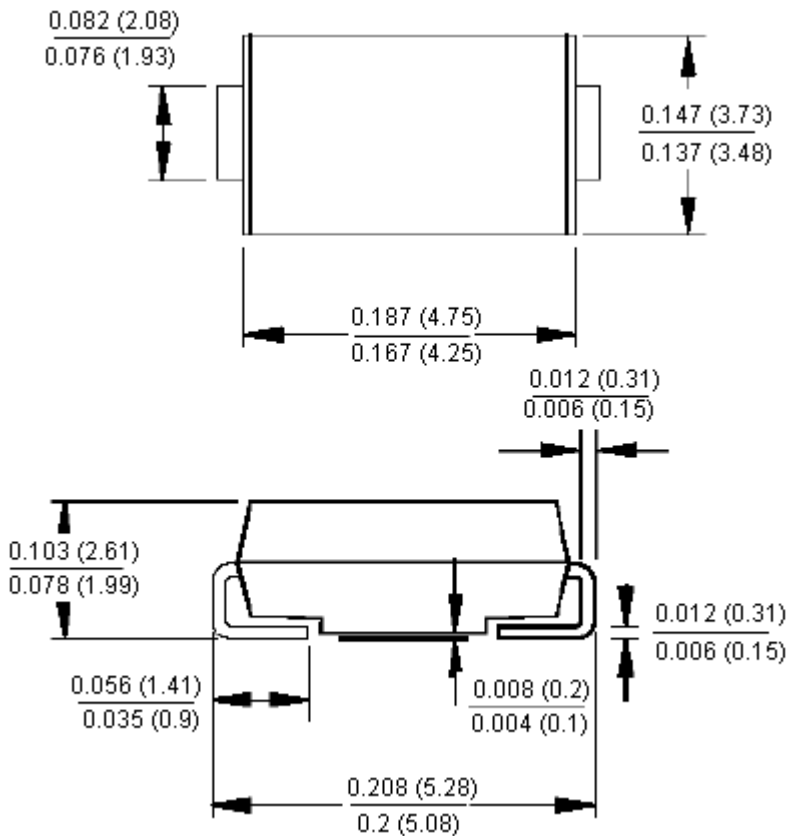
Features:

- For surface mounted application
- Glass passivated junction chip
- Low forward voltage drop
- Easy pick and place
- High surge current capability
- High temperature soldering : 250°C / 10 seconds at terminals

Mechanical Data

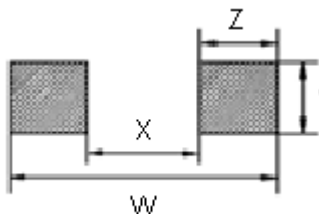
Cases : Moulded plastic
 Terminals : Solder plated
 Polarity : Indicated by cathode band

SMB/DO-214AA



Dimensions : Inches (Millimetres)

Foot Print



Dimensions

Length	Depth	Width	X	Y	Z
5.28	2.61	3.73	3.3	2.21	8

Dimensions : Millimetres

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Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

Type Number	S2A	S2D	S2G	S2J	Unit
Maximum Recurrent Peak Reverse Voltage	50	200	400	600	V
Maximum RMS Voltage	35	140	280	420	
Maximum DC Blocking Voltage	50	200	400	600	
Maximum Average Forward Rectified Current at $T_L = 100^\circ\text{C}$	2				A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	50				
Maximum Instantaneous Forward Voltage at 2 A	1.15				V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	5 125				μA
Maximum Reverse Recovery Time (Note 1)	2				μs
Typical Junction Capacitance (Note 2)	30				pF
Operating Temperature Range T_J	-55 to +150				$^\circ\text{C}$
Storage Temperature Range T_{STG}					

- Notes :** 1. Reverse recovery test conditions : $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, $I_{RR} = 0.25 \text{ A}$
 2. Measured at 1 MHz and applied $V_R = 4 \text{ V}$

Ratings and Characteristic Curves

Figure 1 Maximum Forward Current Derating Curve

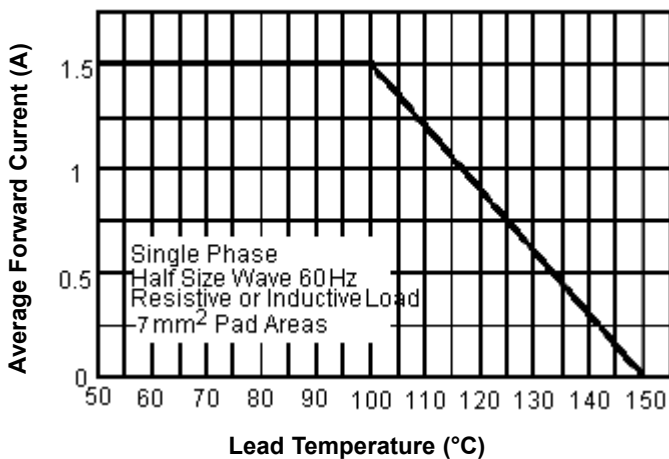
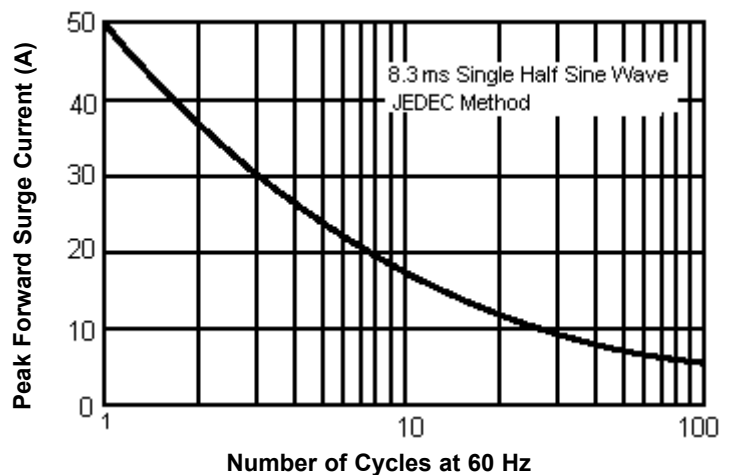


Figure 2 Maximum Forward Current Derating Curve



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Figure 3 Typical Forward Characteristics

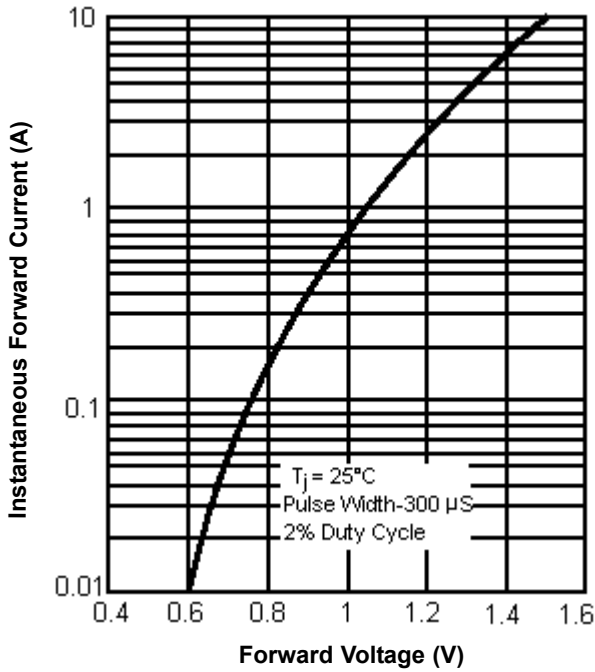


Figure 4 Typical Reverse Characteristics

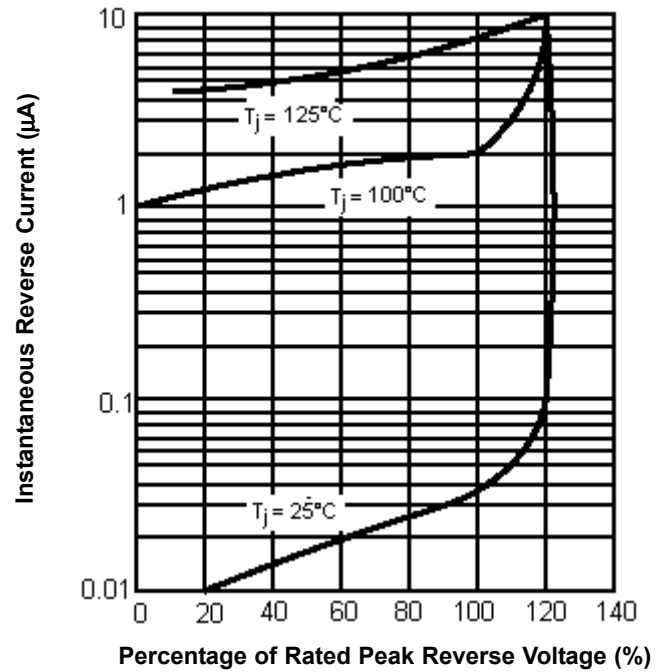
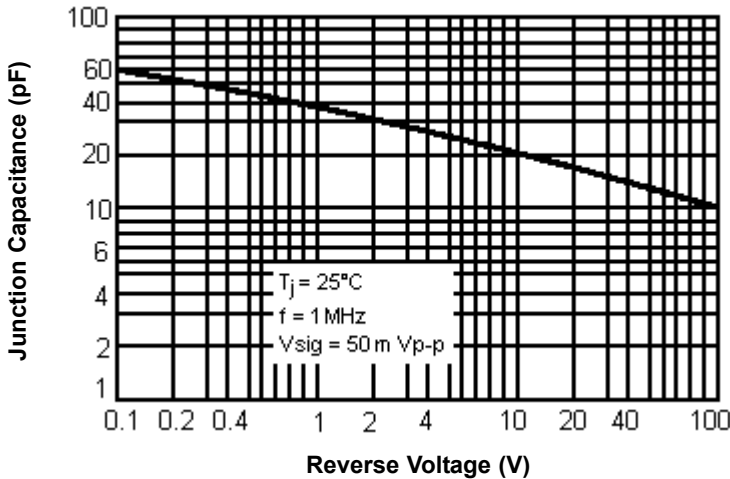


Figure 5 Typical Junction Capacitance



Specification Table

V_{RRM} Maximum (V)	I_{AV} (A)	I_{FSM} (A)	V_{F} (V) at $I_{\text{F}} = 2\text{ A}$ at 25°C	Package	Part Number
50	2	50	1.15	DO-214AA (SMB)	S2A
200					S2D
400					S2G
600					S2J

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