

# SL32B thru SL310B

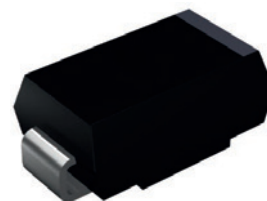
Surface Mount Schottky Rectifiers  
 Reverse Voltage 20V to 100V Forward Current 3A

## Features

- Schottky barrier rectifiers
- Low leakage current
- Low forward voltage drop
- Moisture sensitivity: level 1, per J-STD-020
- Halogen-free according to IEC 61249-2-21 definition
- High temperature soldering guaranteed: 260°C/10 seconds



**RoHS**  
COMPLIANT



DO-214AA (SMB)

## Applications

For use in low voltage, high frequency inverters, free-wheeling and polarity protection application.

## Maximum Ratings (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	SL32B	SL33B	SL34B	SL35B	SL36B	SL37B	SL38B	SL39B	SL310B	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	70	80	90	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	49	56	63	70	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	70	80	90	100	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	3									A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	80									A
Typical Thermal Resistance, Junction to Ambient <sup>1</sup>	R <sub>θJA</sub>	85									°C/W
Typical Thermal Resistance, Junction to Case <sup>1</sup>	R <sub>θJC</sub>	15									
Typical Thermal Resistance, Junction to Lead <sup>1</sup>	R <sub>θJL</sub>	20									
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +125			-55 to +150						°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150									°C

Notes:

1. Mounted on copper pad area of 0.2 x 0.2" (5.0 x 5.0mm) to each terminal.

## Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	SL32B	SL33B	SL34B	SL35B	SL36B	SL37B	SL38B	SL39B	SL310B	Unit
Forward Drop Voltage	V <sub>F</sub>	I <sub>F</sub> =3A	0.45			0.50		0.75				V
Reverse Leakage Current @ V <sub>R</sub>	I <sub>R</sub>	T <sub>J</sub> =25°C	0.2			0.15						mA
		T <sub>J</sub> =100°C	20			50						
Typical Junction Capacitance	C <sub>J</sub>	4.0V, 1MHz	220									pF

## Ratings and Characteristics Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

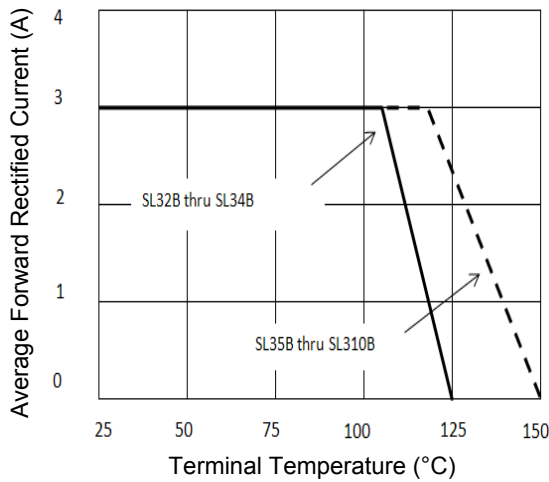


Figure 1. Forward Current Derating Curve

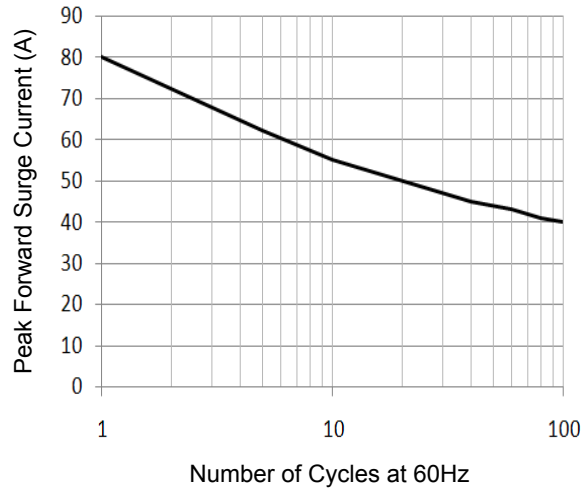


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current



Figure 3. Typical Instantaneous Forward Characteristics

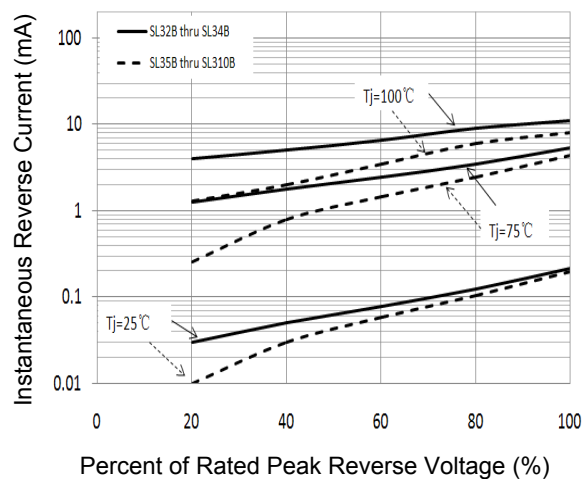


Figure 4. Typical Reverse Characteristics

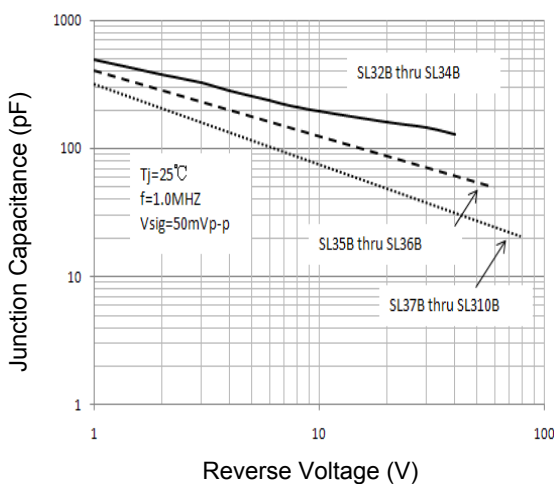


Figure 5. Typical Junction Capacitance

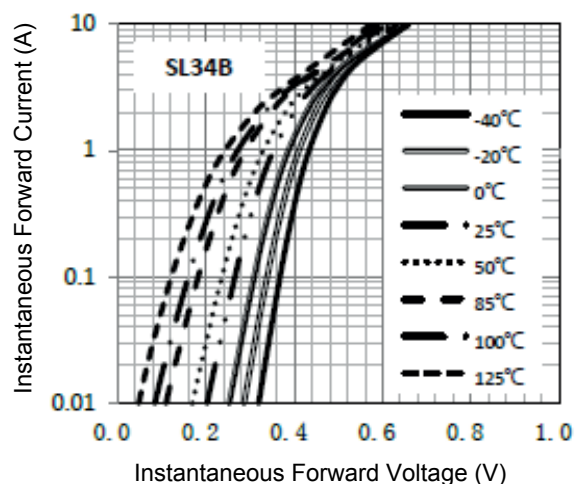
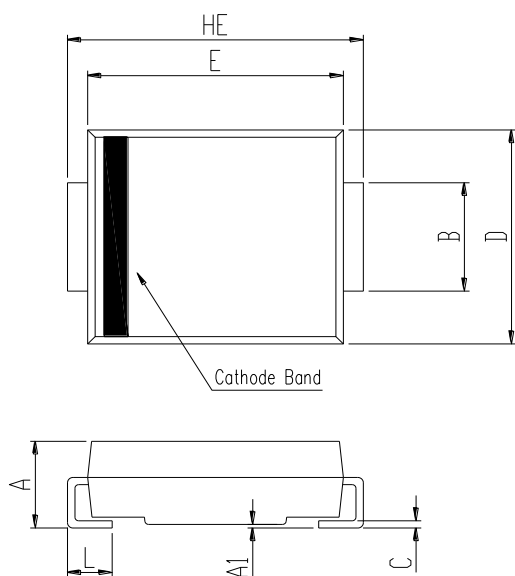


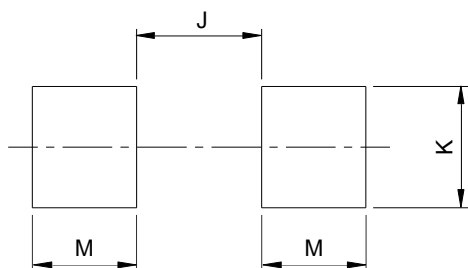
Figure 6. Typical Instantaneous Forward Characteristics

## Package Outline Dimensions DO-214AA (SMB)



SMB (DO-214AA)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.99	2.61	0.078	0.103
A1	0.05	0.20	0.002	0.008
B	1.93	2.08	0.076	0.082
C	0.15	0.31	0.006	0.012
D	3.48	3.73	0.137	0.147
E	4.25	4.75	0.167	0.187
HE	5.26	5.46	0.207	0.215
L	0.90	1.41	0.035	0.056

## Recommended Pad Layout



SMB Recommended Pad Layout (Reference Only)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	-	2.60	-	0.102
K	2.20	-	0.087	-
M	1.80	-	0.071	-

## Order Information

Device	Package	Marking	Carrier	Quantity
SL32B	DO-214AA (SMB)	SL32B	Tape & Reel	3,000pcs / Reel
SL33B	DO-214AA (SMB)	SL33B	Tape & Reel	3,000pcs / Reel
SL34B	DO-214AA (SMB)	SL34B	Tape & Reel	3,000pcs / Reel
SL35B	DO-214AA (SMB)	SL35B	Tape & Reel	3,000pcs / Reel
SL36B	DO-214AA (SMB)	SL36B	Tape & Reel	3,000pcs / Reel
SL37B	DO-214AA (SMB)	SL37B	Tape & Reel	3,000pcs / Reel
SL38B	DO-214AA (SMB)	SL38B	Tape & Reel	3,000pcs / Reel
SL39B	DO-214AA (SMB)	SL39B	Tape & Reel	3,000pcs / Reel
SL310B	DO-214AA (SMB)	SL310B	Tape & Reel	3,000pcs / Reel