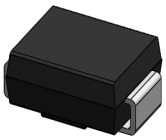
3A,20-60V Schottky Barrier Rectifiers

Features

- Low leakage current
- Schottky barrier diodes
- 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℃/10 seconds

RoHS COMPLIANT



SMB (DO-214AA)

Applications

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

Maximum Ratings & Electrical Characteristics (T_A=25℃ unless otherwise noted)

Parameter	Symbol	SK32B	SK33B	SK34B	SK35B	SK36B	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	V
Maximum average forward rectified current	$I_{F(AV)}$	3					A
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load per diode	I_{FSM}	100					A
Operating junction temperature range	T_J	-55 to +150					°C
Storage temperature range	T_{STG}	-55 to +150					°C

Thermal-Mechanical Specifications (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	85	°C /W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	15	°C /W
Thermal Resistance, Junction to Lead	$R_{\theta JL}$	20	°C /W

Electrical Specifications(T_A=25℃ unless otherwise noted)								
Parameter	**Symbol**	**Test Conditions**	**SK32B**	**SK33B**	**SK34B**	**SK35B**	**SK36B**	**Unit**
Forward Drop Voltage	V_F	I_F=3A	0.50			0.70		V
Reverse leakage current @V_R	I_R	T_J =25℃	0.20			0.15		mA
		T_J =125℃	10					
Typical junction capacitance	C_J	4.0 V 1 MHZ	250					pF

Note：

1. Mounted on copper pad area of 0.2x0.2” (5.0 x 5.0mm) to each terminal.

Ratings and Characteristics Curves

(T_A = 25℃ unless otherwise noted)

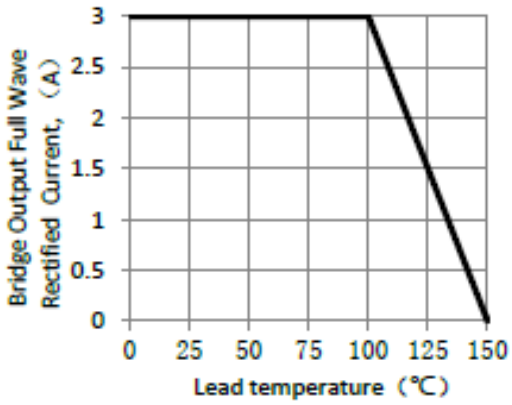


Figure 1.Forward Current Derating Curve

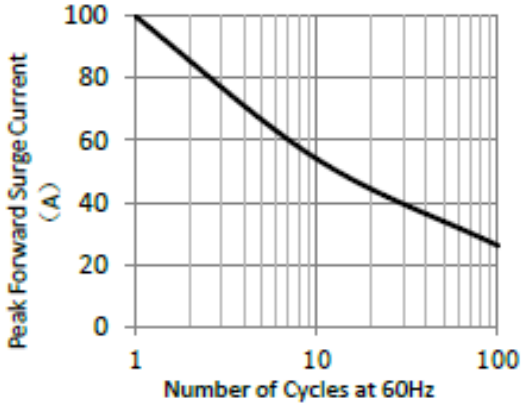


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

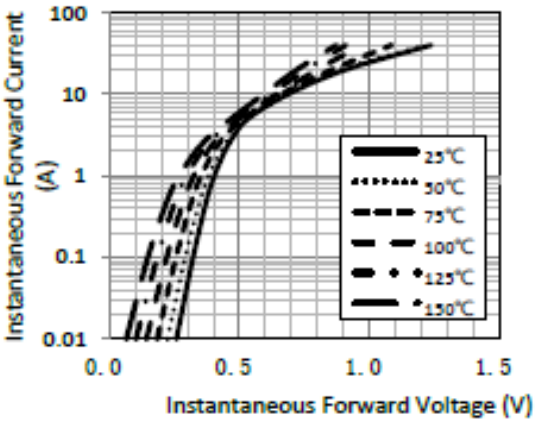


Figure 3. Typical Instantaneous Forward Characteristics (SK32B thru SK34B)

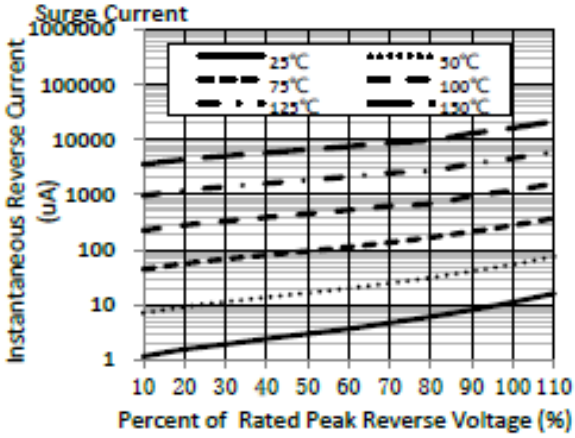


Figure 4. Typical Reverse Characteristics (SK32B thru SK34B)

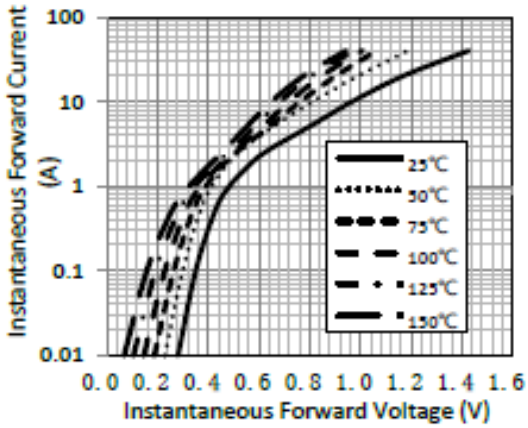


Figure 5. Typical Instantaneous Forward Characteristics (SK35B thru SK36B)

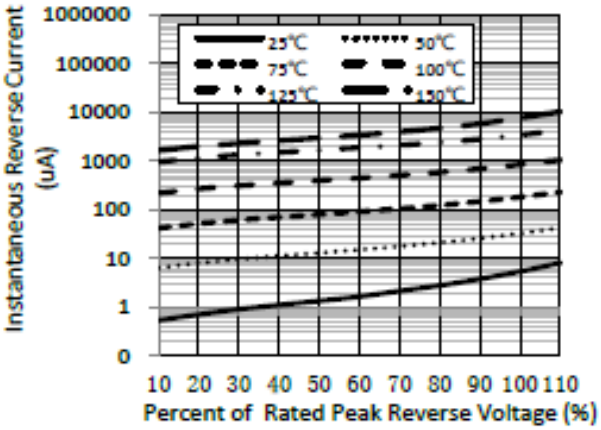
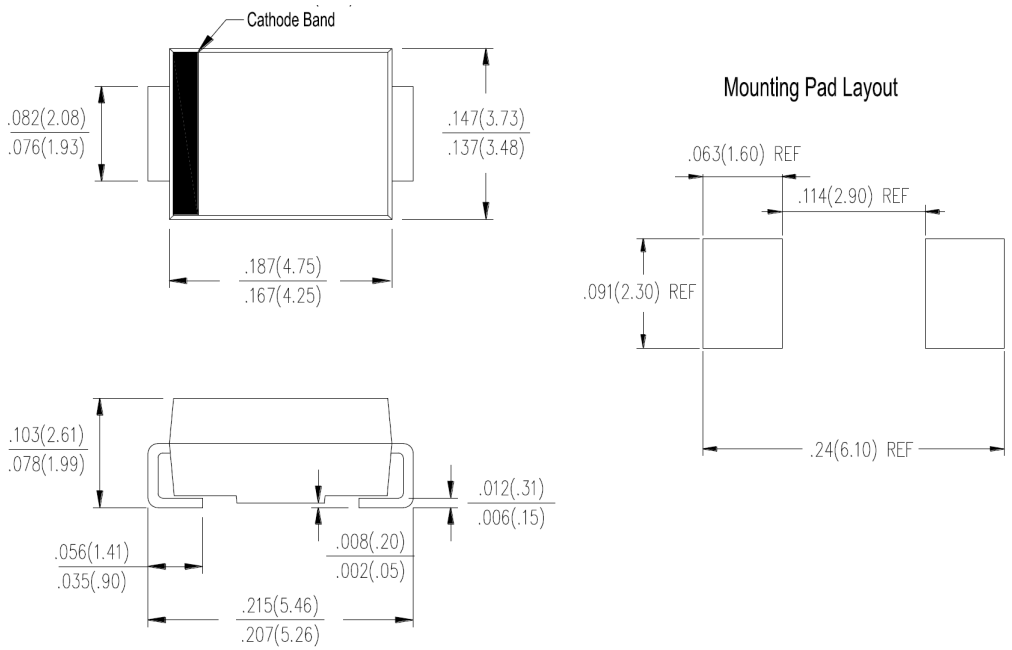


Figure 6. Typical Reverse Characteristics (SK35B thru SK36B)

Package Outline Dimensions

in inches (millimeters)

SMB (DO-214AA)



Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.01	Released Datasheet
Rev.B	2023.10.13	Modify document format

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