

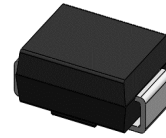
## 5A,70-100V Schottky Barrier Rectifiers

### 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°C/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 <sub>A</sub> =25°C unless otherwise noted)						
Parameter	Symbol	SK57B	SK58B	SK59B	SK5BB	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	70	80	90	100	V
Maximum RMS voltage	V <sub>RMS</sub>	49	56	63	70	V
Maximum DC blocking voltage	V <sub>DC</sub>	70	80	90	100	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	5				A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode	I <sub>FSM</sub>	120				A
Operating junction temperature range	T <sub>J</sub>	-55 to +150				°C
Storage temperature range	T <sub>STG</sub>	-55 to +150				°C

Thermal-Mechanical Specifications (T <sub>A</sub> =25°C unless otherwise noted)			
Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	R <sub>θJA</sub>	85	°C / W
Thermal Resistance, Junction to Case	R <sub>θJC</sub>	15	°C / W
Thermal Resistance, Junction to Lead	R <sub>θJL</sub>	20	°C / W

Electrical Specifications (T <sub>A</sub> =25°C unless otherwise noted)							
Parameter	Symbol	Test Conditions	SK57B	SK58B	SK59B	SK5BB	Unit
Forward Drop Voltage	V <sub>F</sub>	I <sub>F</sub> =5A	0.79				V
Reverse leakage current @V <sub>R</sub>	I <sub>R</sub>	T <sub>J</sub> =25°C	30				uA
		T <sub>J</sub> =125°C	2000				
Typical junction capacitance	C <sub>J</sub>	4.0 V 1 MHz	96				pF

Note:

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

## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

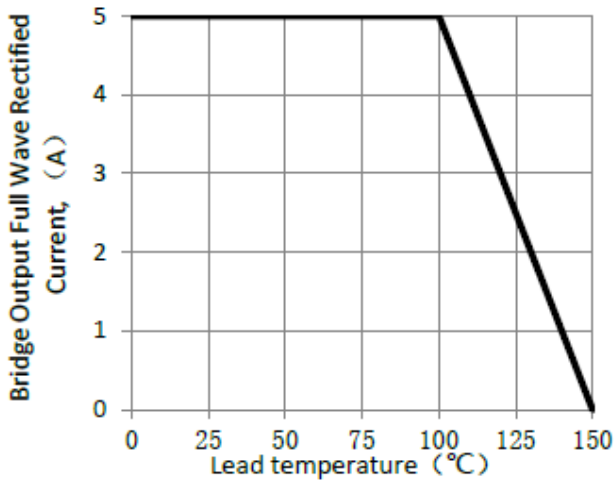


Figure 1. Forward Current Derating Curve

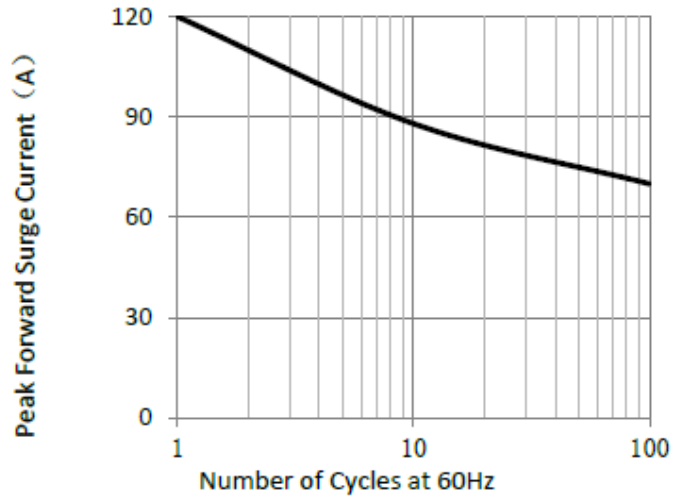


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

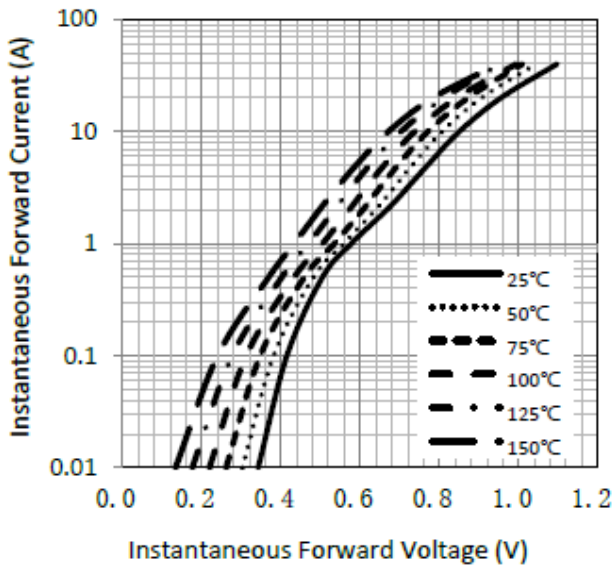


Figure 3. Typical Instantaneous Forward Characteristics

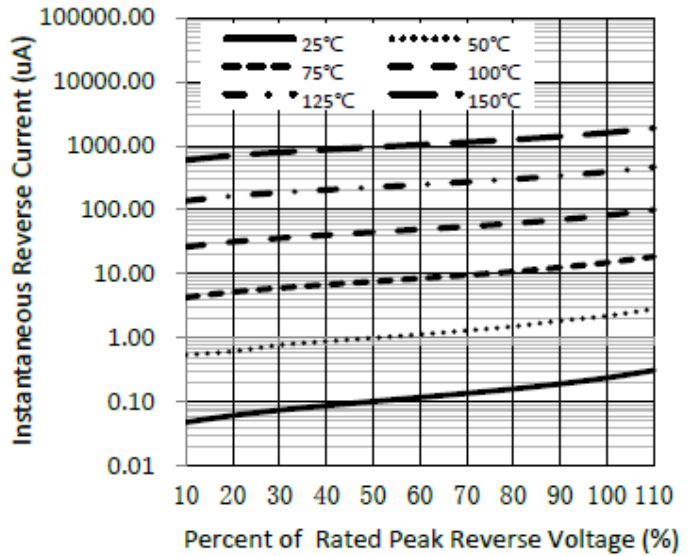
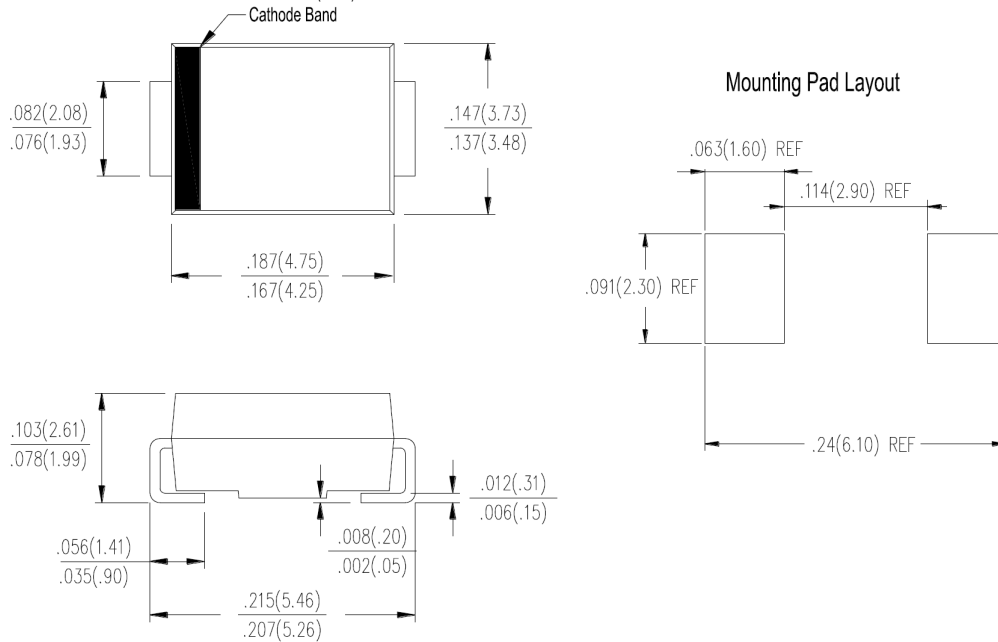


Figure 4. Typical Reverse Characteristics

**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	2023.10.16	Modify document format

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