

### Surface Mount Schottky Barrier Rectifiers

**(Pb)** Lead(Pb)-Free

#### Feature:

- \*For Surface Mount Application
- \*Metal-Semiconductor Junction With Guardring
- \*Epitaxial Construction
- \*Very Low Forward Voltage Drop
- \*High Current Capability
- \*Plastic Meterial Has UL Flammability Classification 94V-0
- \*For Use In Low , And Polarity Protection Applications

#### Mechanical Data

- \*Case : Molded Plastic
- \*Polarity :Indicated by cathode band
- \*Weight : 0.003 Ounce ,0.093 grams

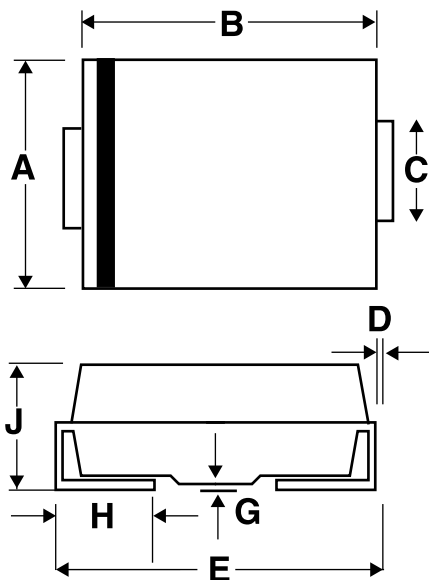
**REVERSE VOLTAGE**  
**20 TO 60 VOLTS**  
**FORWARD CURRENT**  
**1.0 AMPERE**



**SMB(DO-214AA)**

### SMB Outline Dimension

Unit:mm



SMB		
Dim	Min	Max
<b>A</b>	3.30	3.94
<b>B</b>	4.06	4.80
<b>C</b>	1.96	2.21
<b>D</b>	0.15	0.31
<b>E</b>	5.00	5.59
<b>G</b>	0.10	0.20
<b>H</b>	0.76	1.52
<b>J</b>	2.00	2.62

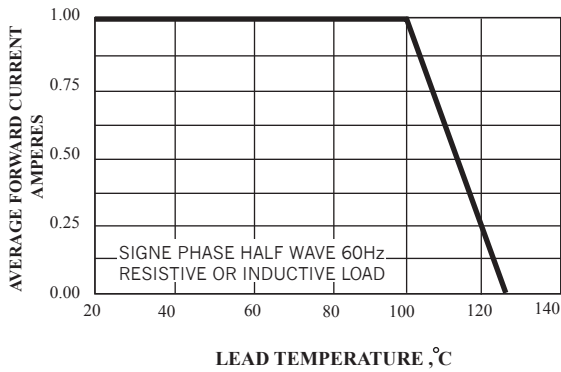
**Maximum Ratings and Electrical Characteristics**

Rating 25 °C Ambient Temperature Unless Otherwise Specified.  
 Single Phase Half Wave, 60Hz , Resistive or Inductive Load.  
 For Capacitive Load, Derate Current by 20%.

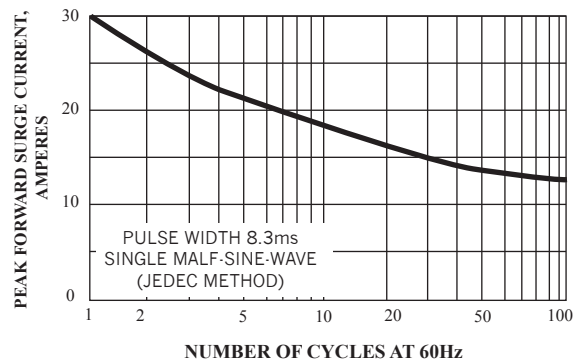
<b>Characteristics</b>	<b>Symbol</b>	<b>B120B</b>	<b>B130B</b>	<b>B140B</b>	<b>B150B</b>	<b>B160B</b>	<b>Unit</b>
Maximum Recurrent Peak Reverse Voltage	VRRM	20	30	40	50	60	V
Maximum RMS Voltage	VRMS	14	21	28	35	42	V
Maximum DC Blocking Voltage	VDC	20	30	40	50	60	V
Maximum Average Forward Rectified Current @TC=100°C	IF(AV)	1.0					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	IFSM	30					A
Maximum Instantaneous At 1.0A DC	VF	0.5			0.7		V
Maximum DC Reverse Current @Tj=25°C At Rated DC Blocking Voltage @Tj=100°C	IR	0.5 10					mA
Typical Junction Capacitance (Note 1)	CJ	110					PF
Typical Thermal Resistance (Note 2)	R <sub>θJL</sub>	20					°C/W
Operating Temperature Range	TJ	-55 to+125					°C
Storage Temperature Range	TSTG	-55 to+150					°C

NOTES:1.Measured at 1.0MHz applied reverse voltage of 4.0V DC.  
 2.Thermal Resistance Junction to case.

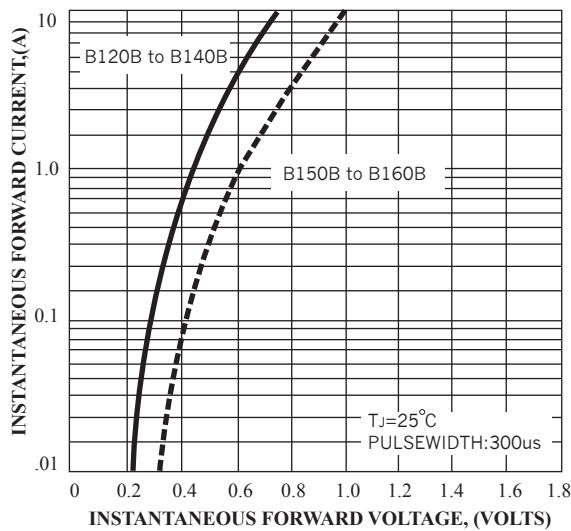
**FIG.1 FORWARD CURRENT DERATING CURVE**



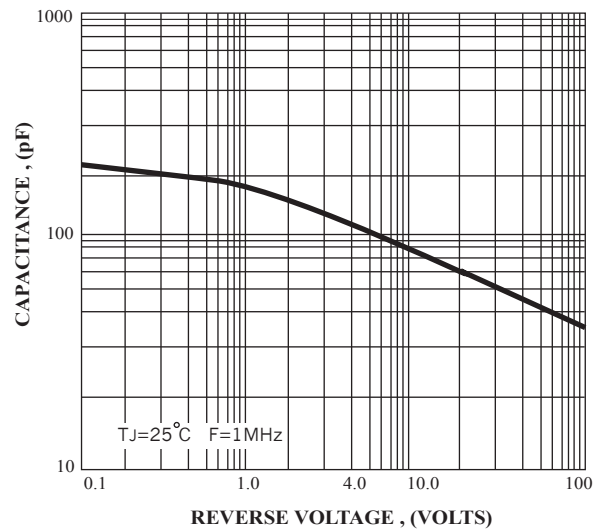
**FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3 TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 TYPICAL JUNCTION CAPACITANCE**



**FIG.5 TYPICAL REVERSE CHARACTERISTICS**

