

### Surface Mount Schottky Barrier Rectifiers

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

#### Features:

- \*For Surface Mount Application
- \*Metal-Semiconductor Junction With Guardring
- \*Epitaxial Construction
- \*Very Low Forward Voltage Drop
- \*High Current Capability
- \*Plastic Material 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 : 0.007 Ounce ,0.21 grams

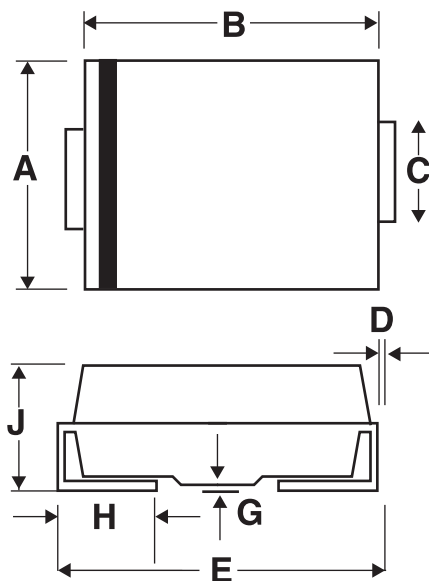
**REVERSE VOLTAGE**  
20 TO 60 VOLTS  
**FORWARD CURRENT**  
5.0 AMPERE



SMC(DO-214AB)

### SMC Outline Dimension

Unit:mm



SMC		
Dim	Min	Max
<b>A</b>	5.59	6.22
<b>B</b>	6.60	7.11
<b>C</b>	2.75	3.18
<b>D</b>	0.15	0.31
<b>E</b>	7.75	8.13
<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.

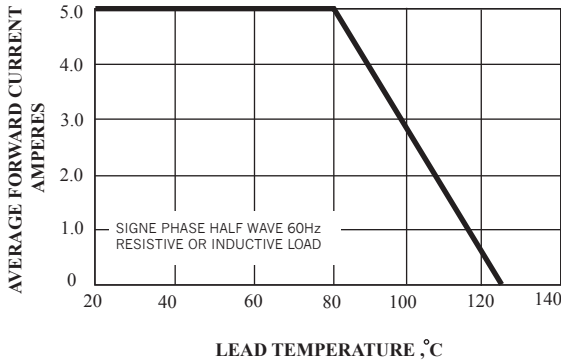
For Capacitive Load, Derate Current by 20%.

Characteristics	Symbol	B520	B530	B540	B550	B560	Unit
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=80°C	I <sub>F(AV)</sub>	5.0					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	IFSM	175					A
Maximum Instantaneous At 5.0A DC	VF	0.55		0.7		V	
Maximum DC Reverse Current @T <sub>j</sub> =25°C At Rated DC Blocking Voltage @T <sub>j</sub> =100°C	IR	0.5 20					mA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	300					PF
Typical Thermal Resistance (Note 2)	R <sub>θJL</sub>	10					°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to+125					°C
Storage Temperature Range	TSTG	-55 to+150					°C

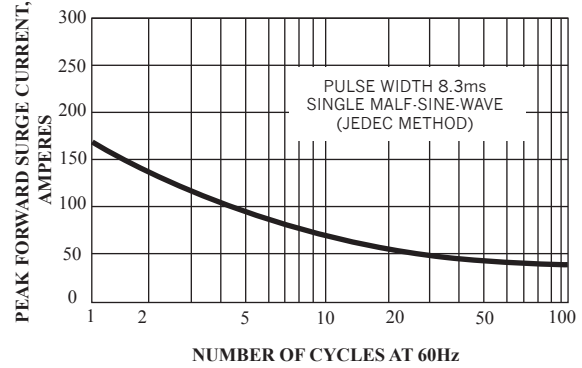
NOTES:1.Measured at 1.0MHz applied reverse voltage of 4.0V DC.

2.Thermal Resistance Junction to case.

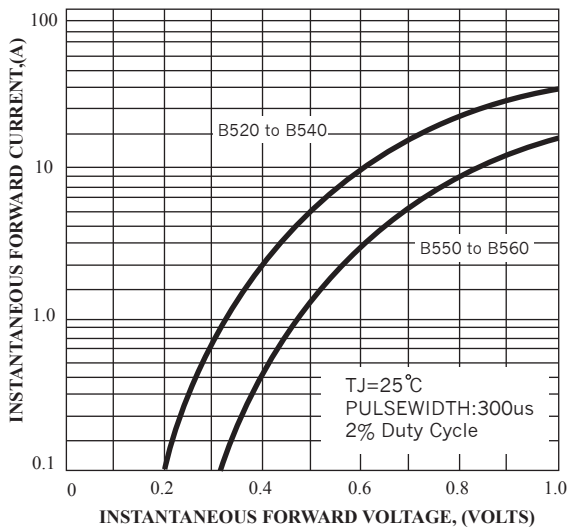
**FIG.1 FORDWARD CURRENT DERATING CURVE**



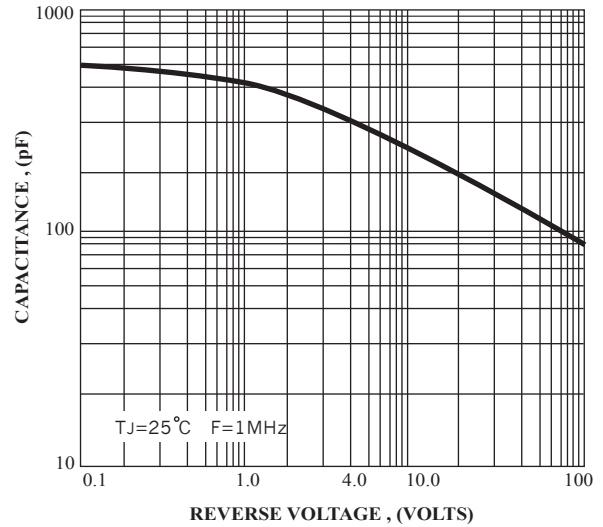
**FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3 TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 TYPICAL JUNCTION CAPACITANCE**



**FIG.5 TYPICAL REVERSE CHARACTERISTICS**

