

### Surface Mount Schottky Barrier Rectifiers

**(P/b)** 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 : 0.002 Ounce ,0.064 grams

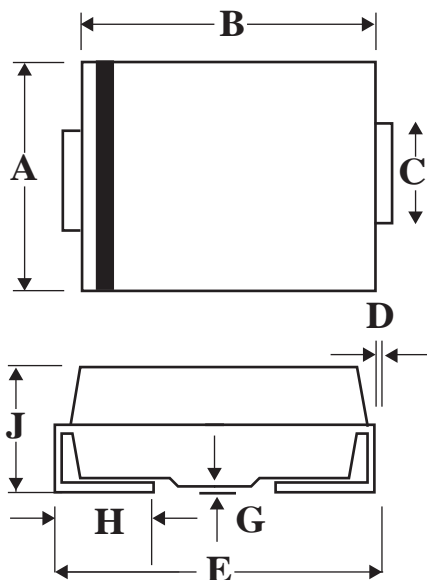
**REVERSE VOLTAGE**  
20 TO 60 VOLTS  
**FORWARD CURRENT**  
1.0 AMPERE



**SMA(DO-214AC)**

### SMA Outline Dimension

Unit:mm



SMA		
Dim	Min	Max
<b>A</b>	2.20	2.92
<b>B</b>	4.00	4.60
<b>C</b>	1.27	1.63
<b>D</b>	0.15	0.31
<b>E</b>	4.48	5.59
<b>G</b>	0.10	0.20
<b>H</b>	0.76	1.52
<b>J</b>	1.70	2.62

**Maximum Ratings and Electrical Characteristics**

Rating 25 °C Ambient Temperature Unless Otherwise Specified.

Single Phase Half Wave, 60Hz , Resistive or Inductive Load.

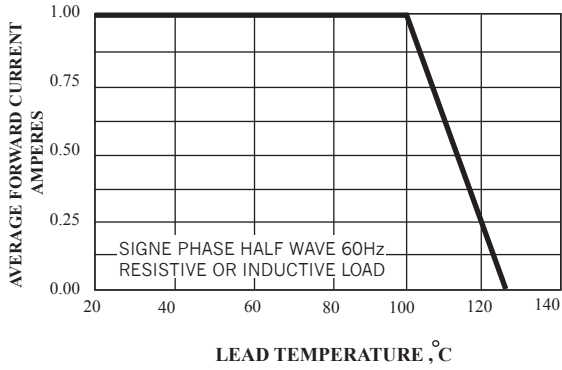
For Capacitive Load, Derate Current by 20%.

Characteristics	Symbol	B120	B130	B140	B150	B160	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=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 θJL	20					°C/W
Operating Temperature Range	TJ	-55 to+125					°C
Storage Temperature Range	TSTG	-55 to+150					°C

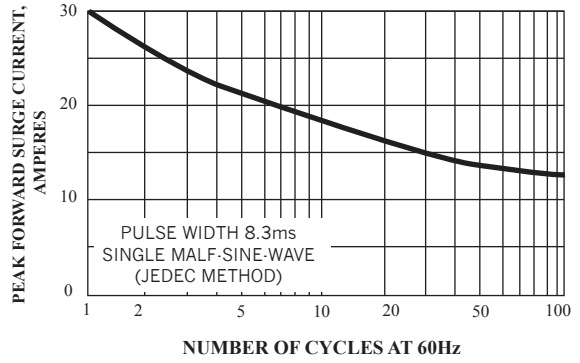
NOTES: 1.Measured at 1.0MHz applied reverse voltage of 4.0V DC.

2.Thermal Resistance Junction to case.

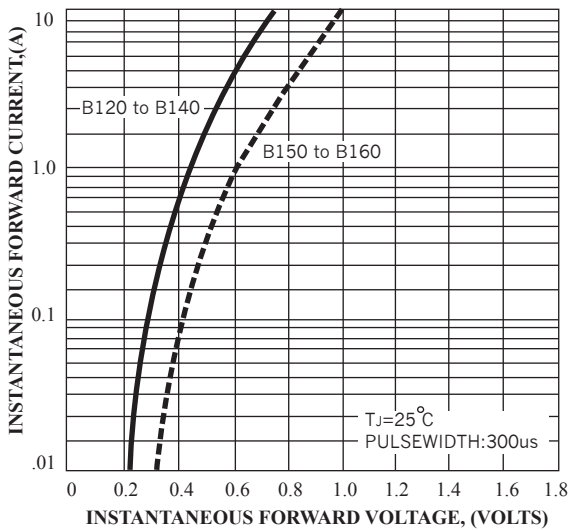
**FIG.1 FORWARD CURRENT DERATING CURVE**



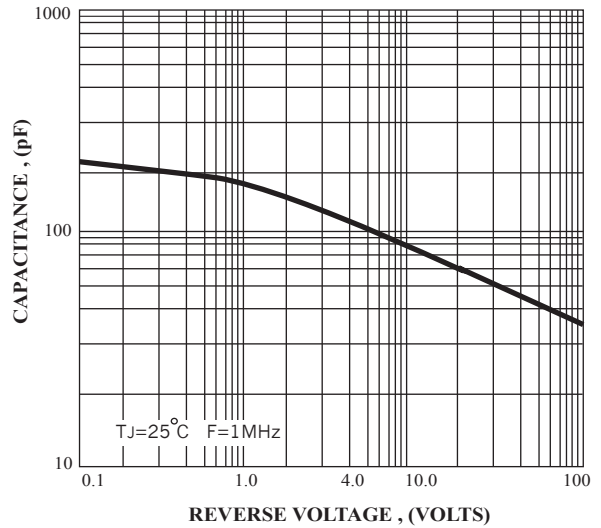
**FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3 TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 TYPICAL JUNCTION CAPACITANCE**



**FIG.5 TYPICAL REVERSE CHARACTERISTICS**

