



**B370A thru B3100A**

## Surface Mount Schottky Barrier Rectifiers

\* "G" Lead(Pb)-Free

**REVERSE VOLTAGE  
70 TO 100 VOLTS  
FORWARD CURRENT  
3.0 AMPERE**

### 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
- \* "G" Lead(Pb)-Free(External Plating)

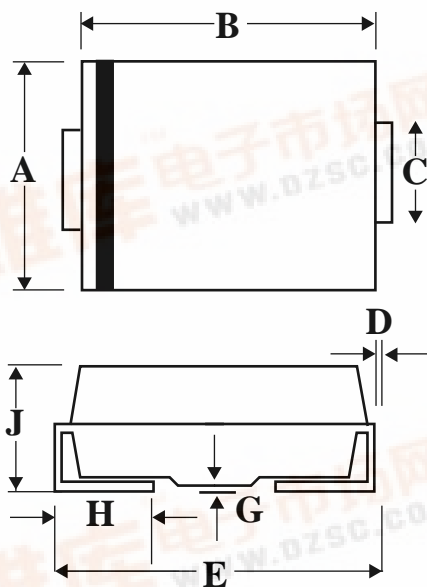


### Mechanical Data

- \*Case : Molded Plastic
- \*Polarity :Indicated by cathode band
- \*Weight : 0.002 Ounce ,0.064 grams

## 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.

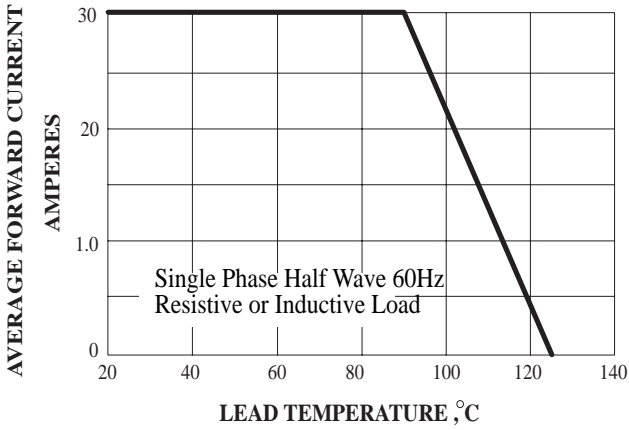
Single Phase Half Wave, 60Hz , Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

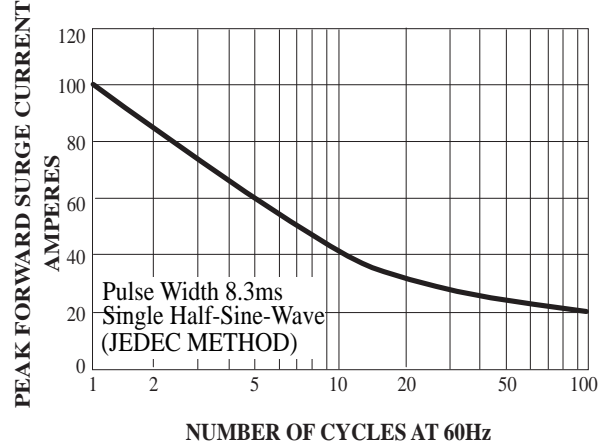
Characteristic	Symbol	B370A	B380A	B390A	B3100A	Unit
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	70	80	90	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	49	56	63	70	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	70	80	90	100	V
Maximum Average Forward Rectified Current @T <sub>c</sub> =90°C	I <sub>F(AV)</sub>	3.0				A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	100				A
Maximum Instantaneous At 3.0A DC	V <sub>F</sub>	0.85				V
Maximum DC Reverse Current @T <sub>j</sub> =25°C At Rated DC Blocking Voltage @T <sub>j</sub> =100°C	I <sub>R</sub>	0.5 20				mA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	100				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	T <sub>STG</sub>	-55 to+150				°C

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

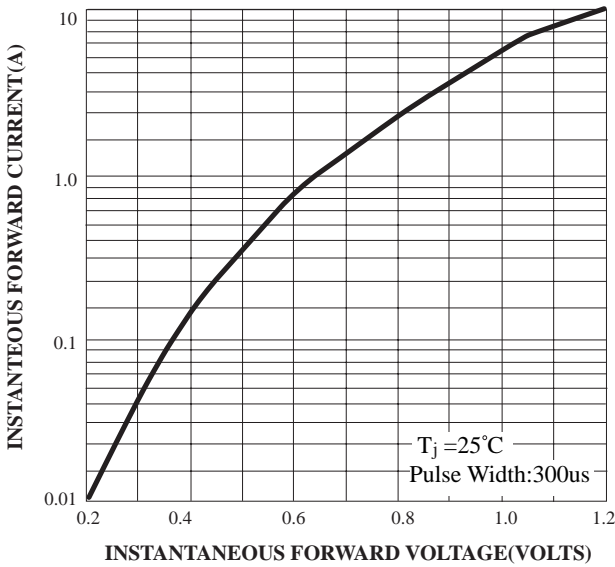
2.Thermal Resistance Junction to case.



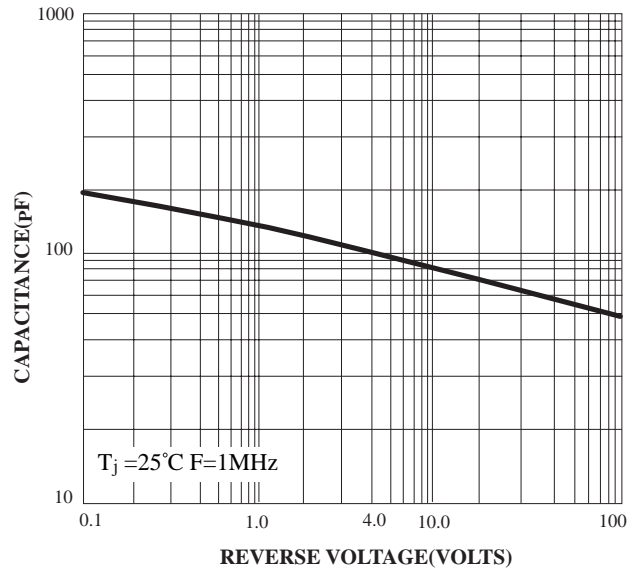
**FIG.1 Forward Current Derating Curve**



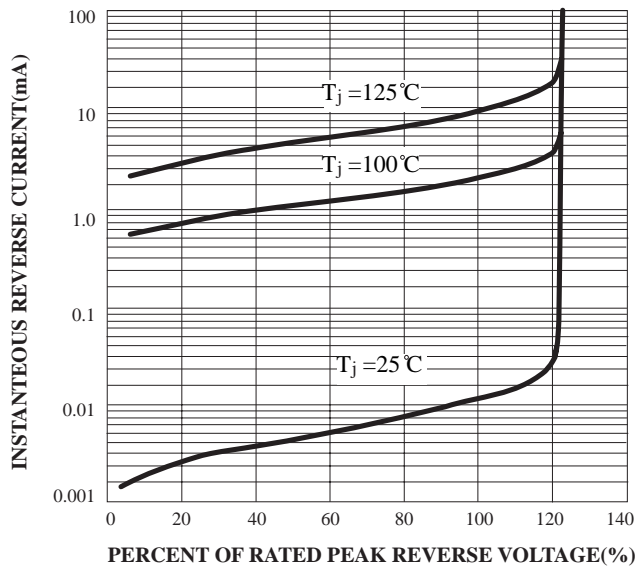
**FIG.2 Maximum Non-Repetitive Surge Current**



**FIG.3 Typical Forward Characteristics**



**FIG.4 Typical Junction Capacitance**



**FIG.5 Typical Reverse Characteristics**