

Surface Mount Schottky Barrier Rectifiers

 Lead(Pb)-Free

Feature:

- *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 : 0.003 Ounce ,0.093 grams

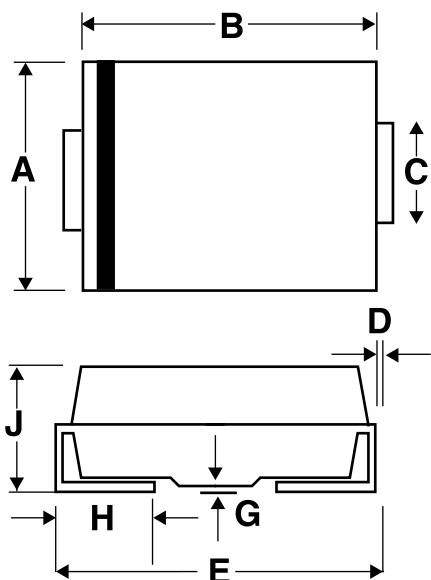
REVERSE VOLTAGE
20 TO 100 VOLTS
FORWARD CURRENT
1.0 AMPERE



SMB(DO-214AA)

SMB Outline Dimension

Unit:mm



SMB		
Dim	Min	Max
A	3.30	3.94
B	4.06	4.80
C	1.96	2.21
D	0.15	0.31
E	5.00	5.59
G	0.10	0.20
H	0.76	1.52
J	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	B120B	B130B	B140B	B150B	B160B	B170B	B180B	B190B	B1100B	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	70	80	90	100	V
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	49	56	63	70	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	70	80	90	100	V
Maximum Average Forward Rectified Current @TC=100°C	I _{F(AV)}	1.0									A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	30									A
Maximum Instantaneous At 1.0A	V _F	0.5			0.7		0.79				V
Maximum DC Reverse Current @Tj=25°C At Rated DC Blocking Voltage @Tj=100°C	I _R	0.5 10									mA
Typical Junction Capacitance (Note1)	C _J	110									pF
Typical Thermal Resistance (Note2)	R _{θJL}	20									°C/W
Operating Temperature Range	T _J	-55 to +125									°C
Storage Temperature Range	T _{STG}	-55 to +150									°C

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

FIG.1 FORDWARD CURRENT DERATING CURVE

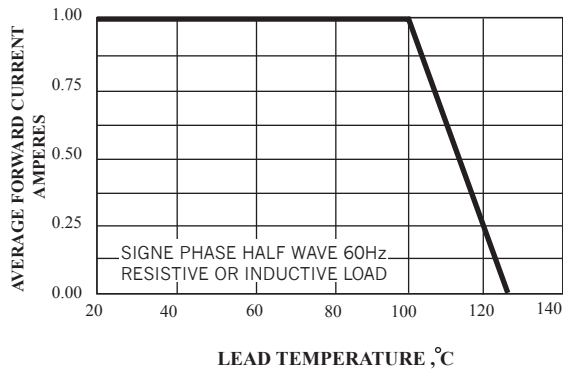


FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

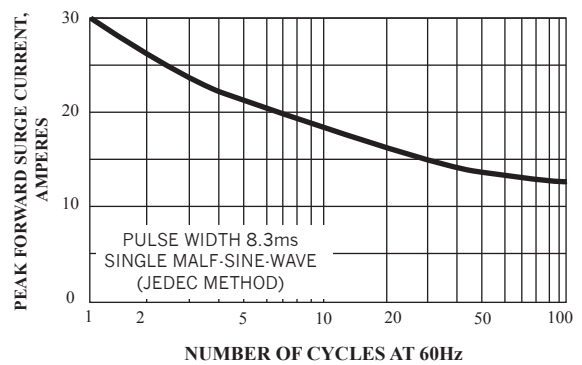


FIG.3 TYPICAL FORWARD CHARACTERISTICS

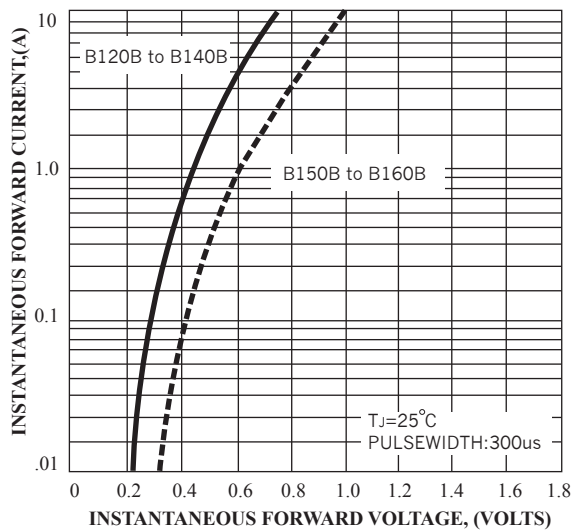


FIG.4 TYPICAL JUNCTION CAPACITANCE

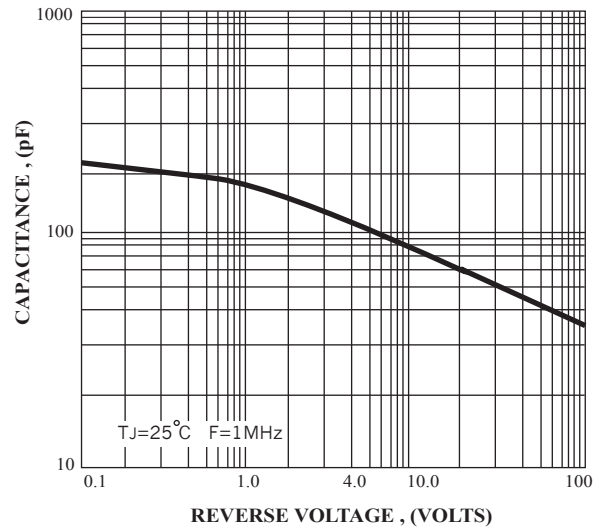


FIG.5 TYPICAL REVERSE CHARACTERISTICS

