

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

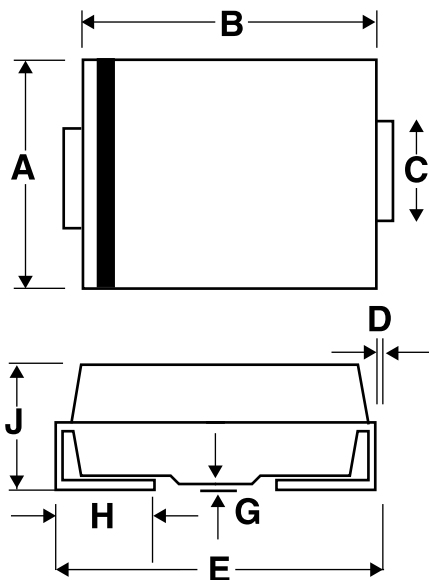
**REVERSE VOLTAGE
20 TO 100 VOLTS
FORWARD CURRENT
1.0 AMPERE**



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)	$R_{\theta JL}$	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 FORWARD CURRENT DERATING CURVE

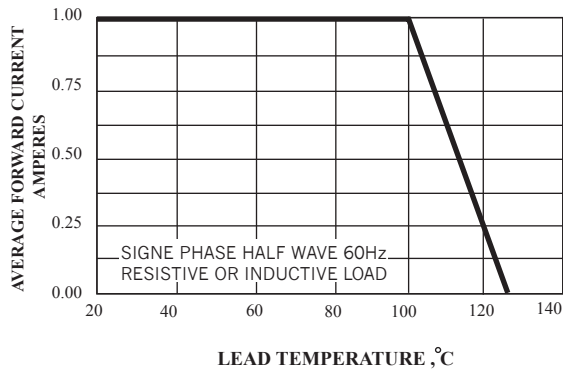


FIG.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

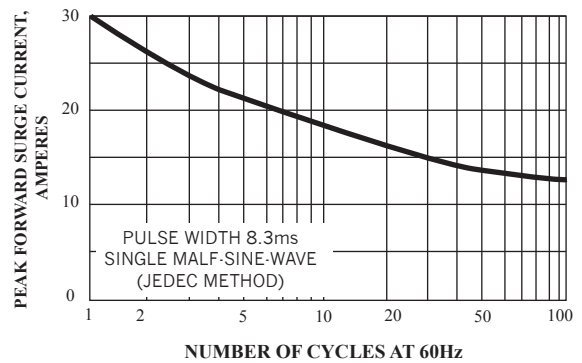


FIG.3 TYPICAL FORWARD CHARACTERISTICS

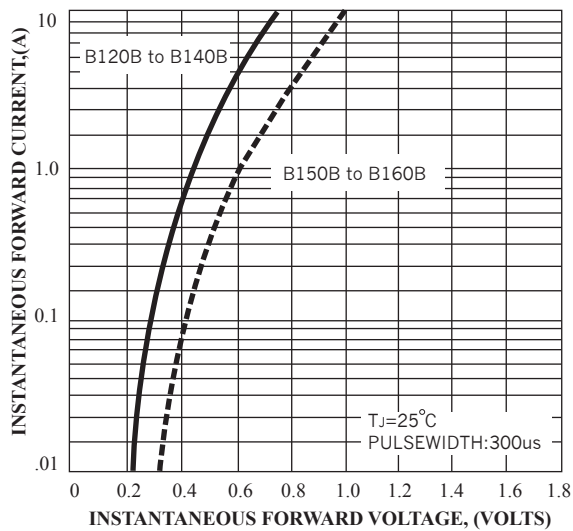


FIG.4 TYPICAL JUNCTION CAPACITANCE

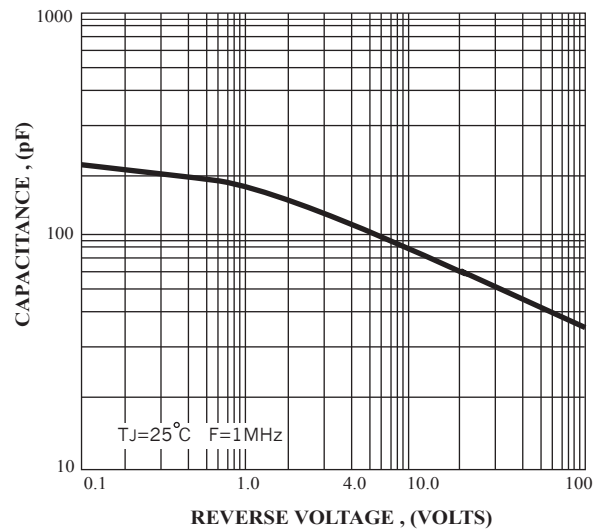


FIG.5 TYPICAL REVERSE CHARACTERISTICS

