

**SURFACE MOUNT  
SCHOTTKY BARRIER RECTIFIERS**

REVERSE VOLTAGE - **20 to 60** Volts  
FORWARD CURRENT - **1.0** Ampere

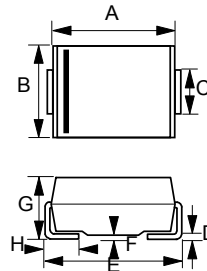
**FEATURES**

- For surface mounted applications
- 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 voltage, high frequency inverters, free wheeling, and polarity protection applications

**MECHANICAL DATA**

- Case : Molded plastic
- Polarity :Color band denotes cathode.
- Weight : 0.003 ounces, 0.093 grams

**SMB**



SMB		
DIM.	MIN.	MAX.
A	4.06	4.57
B	3.30	3.94
C	1.96	2.21
D	0.15	0.31
E	5.21	5.59
F	0.05	0.20
G	2.01	2.50
H	0.76	1.52

All Dimensions in millimeter

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

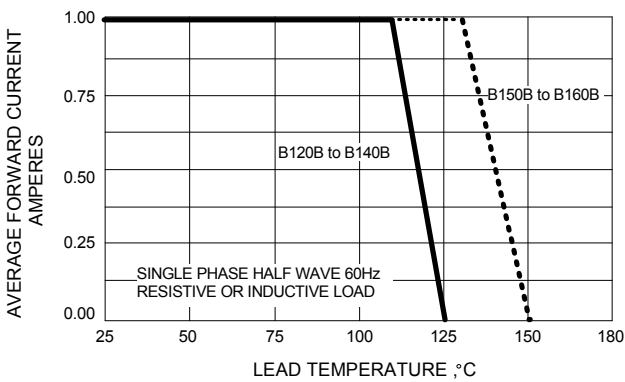
Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	B120B	B130B	B140B	B150B	B160B	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	V
Maximum Average Forward Rectified Current (see Fig.1)	I <sub>(AV)</sub>	1.0					A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load	I <sub>FSM</sub>	30					A
Maximum forward Voltage at 1.0A DC	V <sub>F</sub>	0.5			0.7		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>				0.5 10		mA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	110					pF
Typical Thermal Resistance (Note 2)	R <sub>θJL</sub>	22					°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +125			-55 to +150		°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150					°C

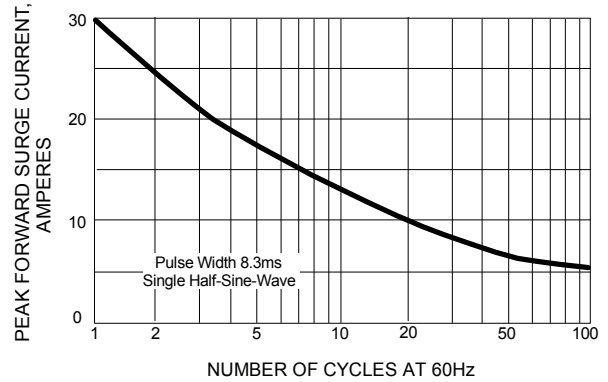
NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2.Unit mounted on 0.75t glass-epoxy substrate with 2x3 mm copper pad.

REV. 5, Apr-2010, KSHB01

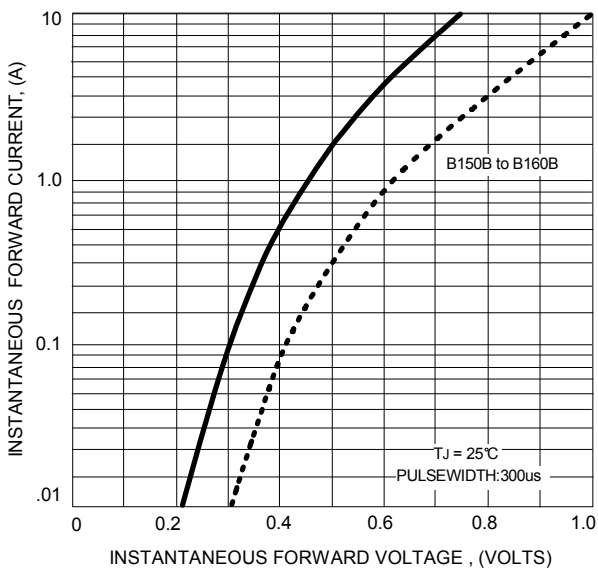
**FIG.1 - FORWARD CURRENT DERATING CURVE**



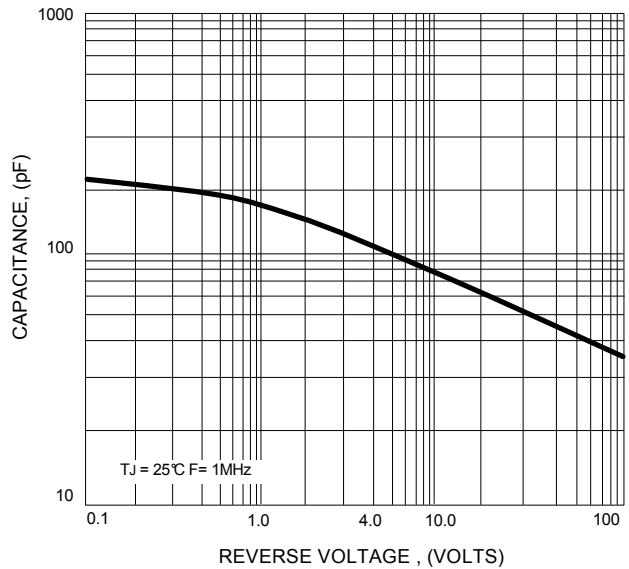
**FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL JUNCTION CAPACITANCE**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

