

**SURFACE MOUNT
SCHOTTKY BARRIER RECTIFIERS**

REVERSE VOLTAGE - **40** Volts
FORWARD CURRENT- **1.0** Ampere

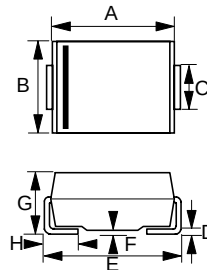
FEATURES

- 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	2.62
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	B140HB	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	40	V
Maximum RMS Voltage	V _{RMS}	28	V
Maximum DC Blocking Voltage	V _{DC}	40	V
Maximum Average Forward Rectified Current @T _L =115°C	I _(AV)	1.0	A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I _{FSM}	45	A
Maximum Instantaneous Forward Voltage at I _F =1.0A @T _J =25°C @T _J =125°C	V _F	0.53 0.49	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T _J =25°C @T _J =125°C	I _R	0.1 4.0	mA
Typical Junction Capacitance (Note 1)	C _J	65	pF
Typical Thermal Resistance (Note 2)	R _{θJL}	36	°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 and applied reverse voltage of 4.0V DC.
2.Thermal Resistance Junction to Lead.

REV. 0, 14-Feb-2001, KSHB06

FIG.1 - FORWARD CURRENT DERATING CURVE

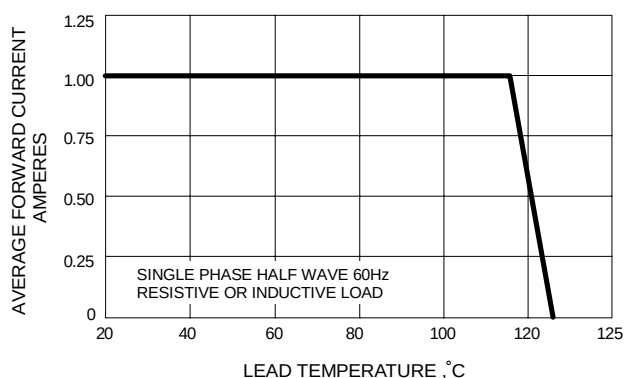


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

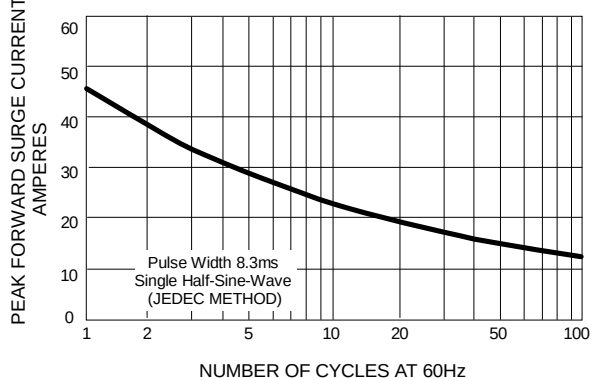


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

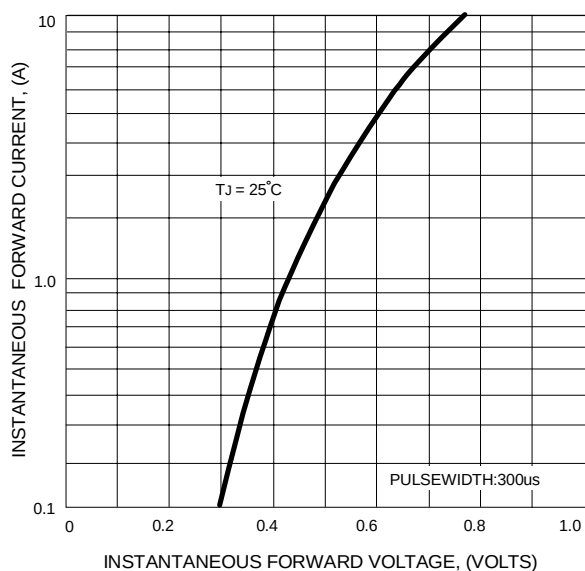


FIG.4 - TYPICAL JUNCTION CAPACITANCE

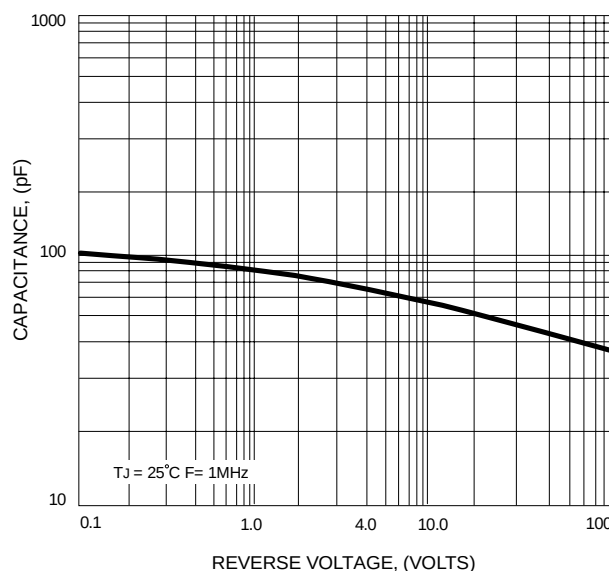


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

