

**SURFACE MOUNT  
SCHOTTKY BARRIER RECTIFIERS**

**REVERSE VOLTAGE – 50 to 60 Volts**  
**FORWARD CURRENT – 5.0 Amperes**

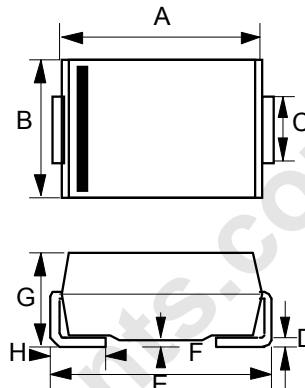
**FEATURES**

- For surface mounted applications
- Metal-Semiconductor junction with guard ring
- 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 application

**MECHANICAL DATA**

- Case: Molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.007 ounces, 0.21 grams

**SMC**



SMC		
DIM.	MIN.	MAX.
A	6.60	7.11
B	5.59	6.22
C	2.92	3.18
D	0.15	0.31
E	7.75	8.13
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.

CHARACTERISTICS	SYMBOL	B550C	B560C	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	60	V
Maximum RMS Voltage	$V_{RMS}$	35	42	V
Maximum DC Blocking Voltage	VDC	50	60	A
Maximum Average Forward Rectified Current (Note4) @TL=105°C	$I_{AV}$	5.0		A
Peak Forward Surge 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	125		A
Maximum Forward Voltage at 5.0A DC	$V_F$	0.7		V
Maximum DC Reverse Current @Tj=25°C at Rated DC Blocking Voltage @Tj=100°C	$I_R$	0.5 20		mA
Typical Junction Capacitance (Note 1)	$C_j$	240		pF
Typical Thermal Resistance (Note 2, 4)	$R_{\theta JL}$	15		°C/W
Typical Thermal Resistance (Note 3, 4)	$R_{\theta JA}$	50		°C/W
Operating Junction Temperature Range	Tj	-55 to +150		°C
Storage Temperature Range	TSTG	-55 to +150		°C

Note: (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC...

(2) Thermal Resistance Junction to Lead

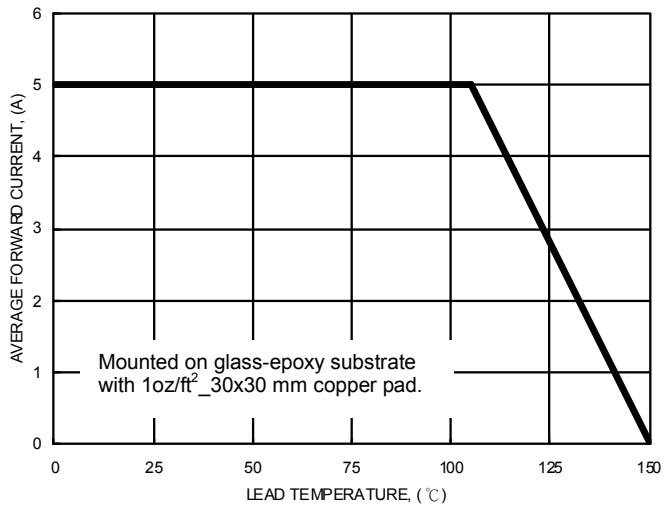
(3) Thermal Resistance Junction to Ambient

(4) Unit mounted on glass epoxy substrate 1oz/ft<sup>2</sup> 30x30 mm copper pad.

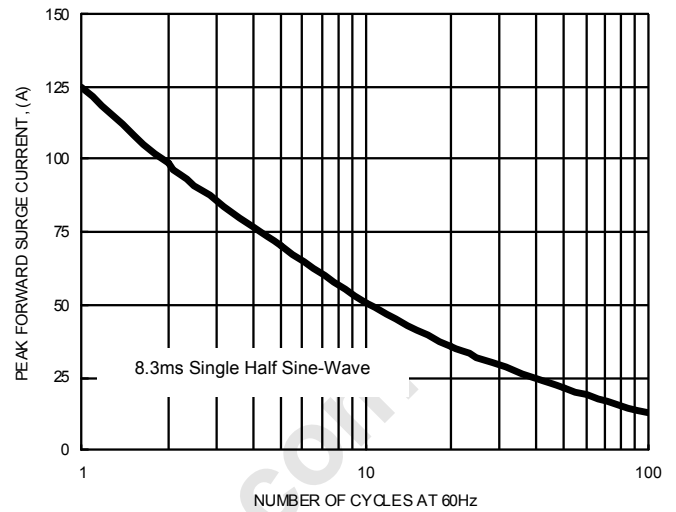
REV.3, Oct-2010, KSHC09

**RATING AND CHARACTERISTIC CURVES**  
**B550C thru B560C**

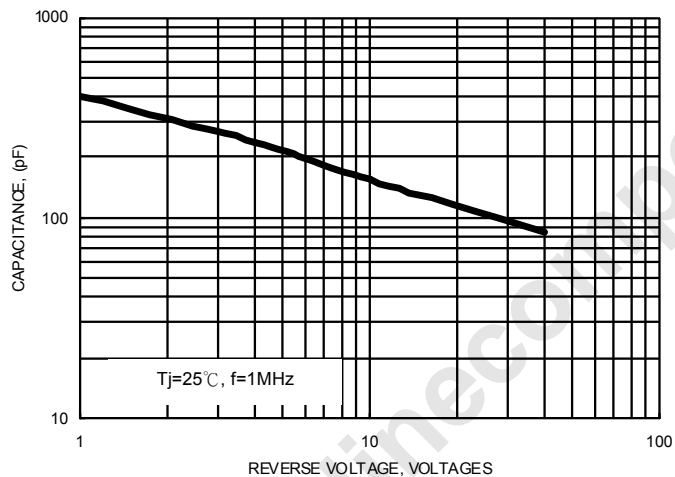
**FIG.1- FORWARD CURRENT DERATING CURVE**



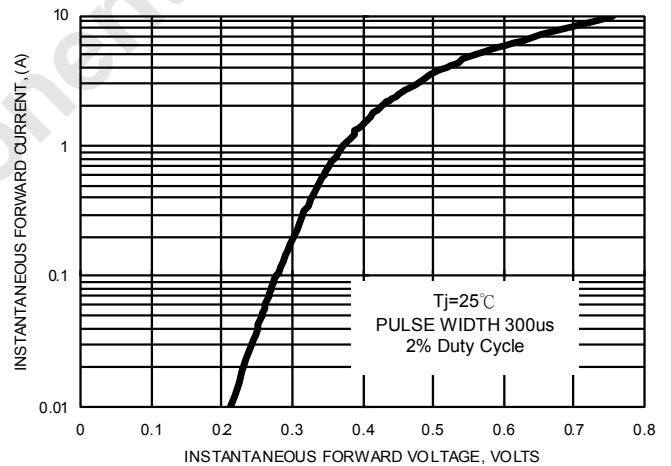
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



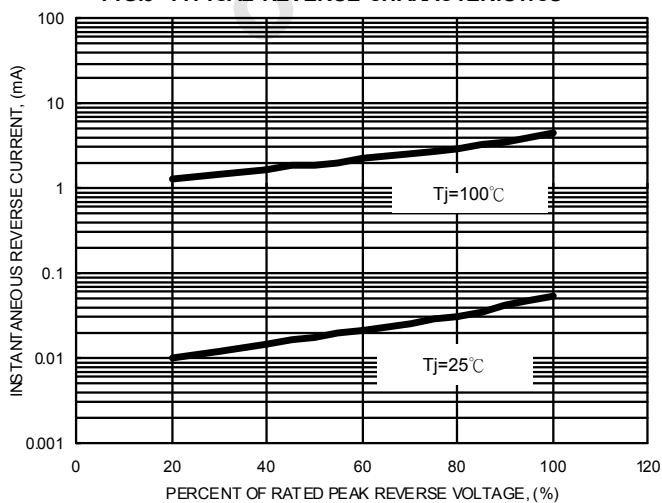
**FIG.3- TYPICAL JUNCTION CAPACITANCE**



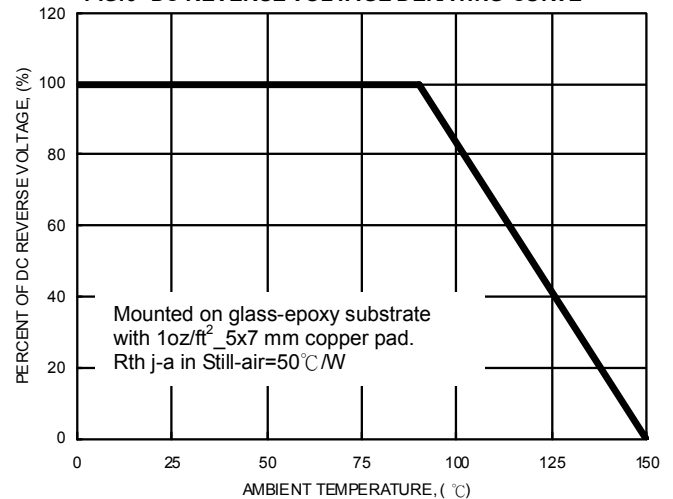
**FIG.4- TYPICAL FORWARD CHARACTERISTICS**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



**FIG.6- DC REVERSE VOLTAGE DERATING CURVE**



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