

**SURFACE MOUNT  
SCHOTTKY BARRIER RECTIFIERS**

**REVERSE VOLTAGE – 60 Volts**  
**FORWARD CURRENT – 8.0 Amperes**

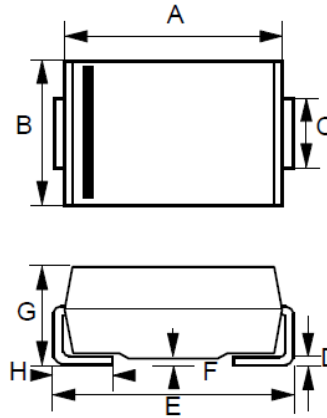
**FEATURES**

- For surface mounted application
- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Very Low forward voltage drop
- High current capability
- Qualified according to AEC-Q101 Rev\_C
- Plastic material has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection application
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

**MECHANICAL DATA**

- Package: 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.

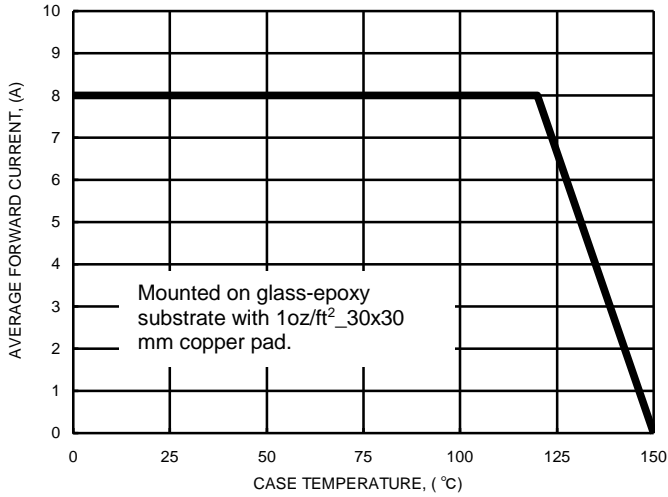
CHARACTERISTICS	SYMBOL	B860C	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	60	V
Maximum DC Blocking Voltage	$V_{DC}$	60	V
Maximum Average Forward Rectified Current @ $T_c=120^\circ\text{C}$	$I_{AV}$	8.0	A
Peak Forward Surge 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	175	A
Maximum Forward Voltage at 8.0A DC	$V_F$	0.7	V
Maximum DC Reverse Current @ $T_j=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_j=100^\circ\text{C}$	$I_R$	100 50	$\mu\text{A}$ mA
Typical Junction Capacitance (Note 4)	$C_j$	340	pF
Typical Thermal Resistance (Note 5, 6)	$R_{\theta JC}$ $R_{\theta JL}$ $R_{\theta JA}$	6.0 20 30	$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_j$	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

- Notes :**
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
  2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
  3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
  4. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
  5. Thermal Resistance Junction to Lead, Case and Ambient.
  6. Unit mounted on 30 x 30 x 1.3 mm copper pad.

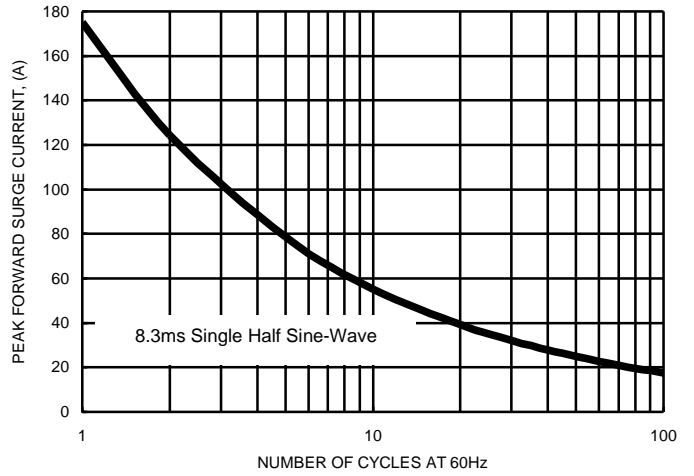
**RATING AND CHARACTERISTIC CURVES**

**B860C**

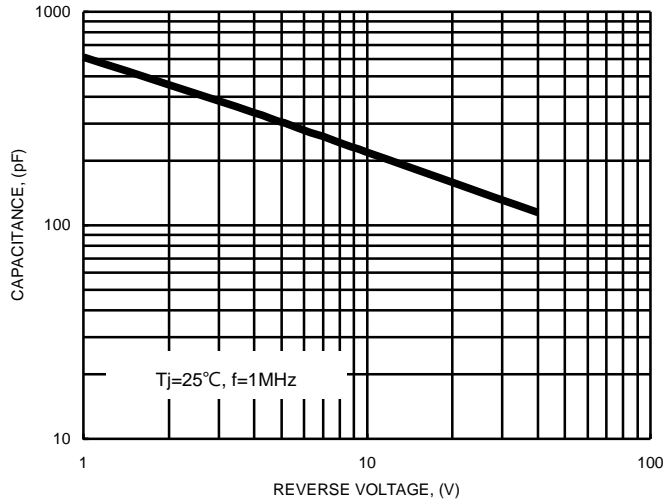
**FIG.1- FORWARD CURRENT DERATING CURVE**



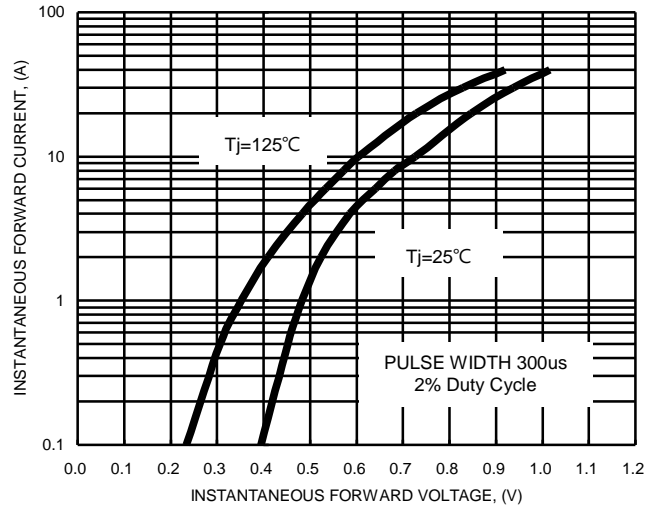
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



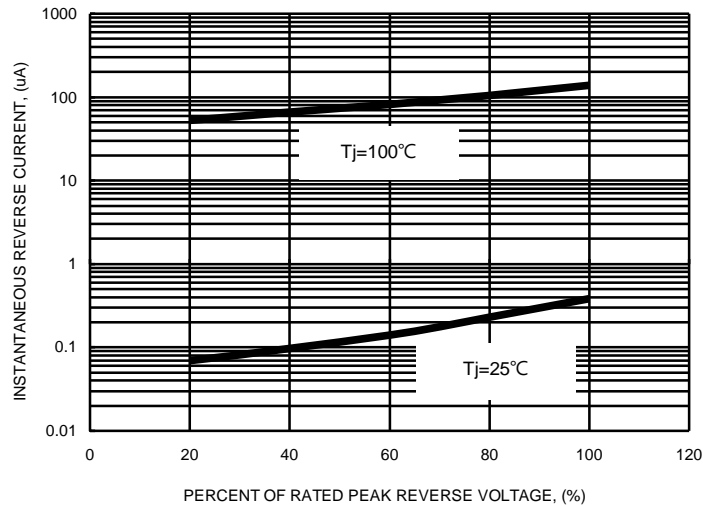
**FIG.3- TYPICAL JUNCTION CAPACITANCE**



**FIG.4- TYPICAL FORWARD CHARACTERISTICS**



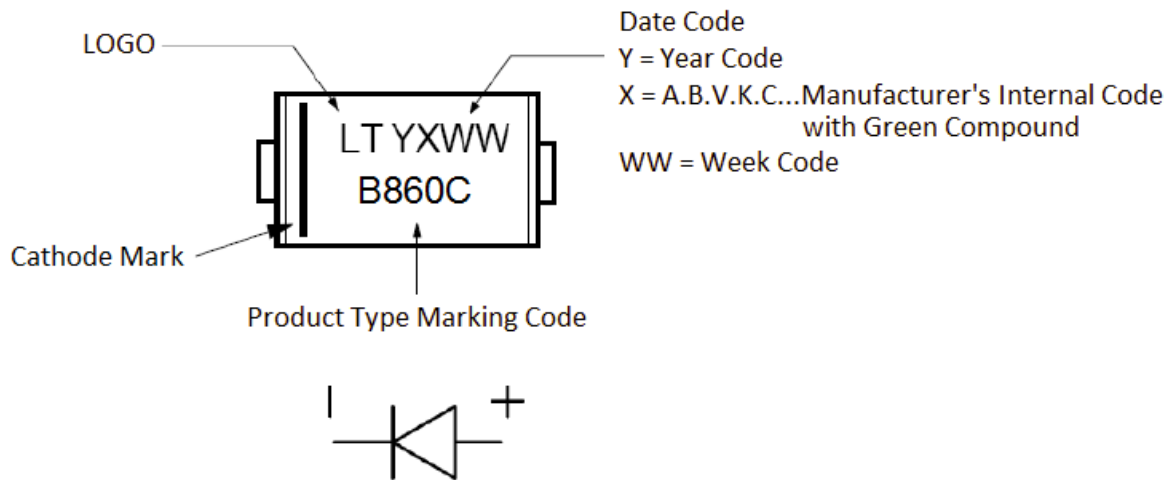
**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



### Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
B860C	SMC	3000	Tape & Reel

### Marking Information :



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