A Product Line of Diodes Incorporated

LITE-ON SEMICONDUCTOR

B560C(LS)

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE – 60 Volts
FORWARD CURRENT – 5.0 Amperes

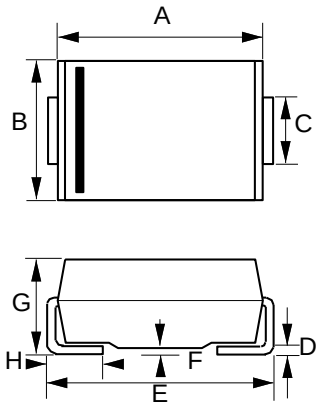
FEATURES

- For surface mounted applications
- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Very Low forward voltage drop
- High current capability
- Qualified according to AEC-Q101 Rec_C
- For use in low voltage, high frequency inverters, freewheeling, 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
- Package Material: Molding compound, UL Flammability classification 94V-0, "Halogen-free".
- 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	B560C	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	60	V
Maximum RMS Voltage	V_{RMS}	42	V
Maximum DC Blocking Voltage	V_{DC}	60	V
Maximum Average Forward Rectified Current (Note7) @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	0.25 20	mA
Typical Junction Capacitance (Note 4)	C_j	240	pF
Typical Thermal Resistance (Note 5, 7)	$R_{\Theta JL}$	15	°C/W
Typical Thermal Resistance (Note 6, 7)	$R_{\Theta JA}$	50	°C/W
Operating Junction Temperature Range	T_j	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°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.
6. Thermal Resistance Junction to Ambient.
7. Unit mounted on glass epoxy substrate 1oz/ft2 30x30 mm copper pad.

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RATING AND CHARACTERISTIC CURVES
B560C

FIG.1- FORWARD CURRENT DERATING CURVE

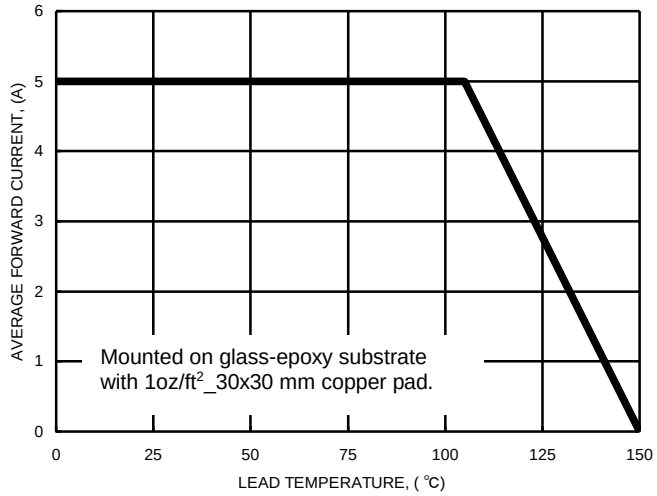


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

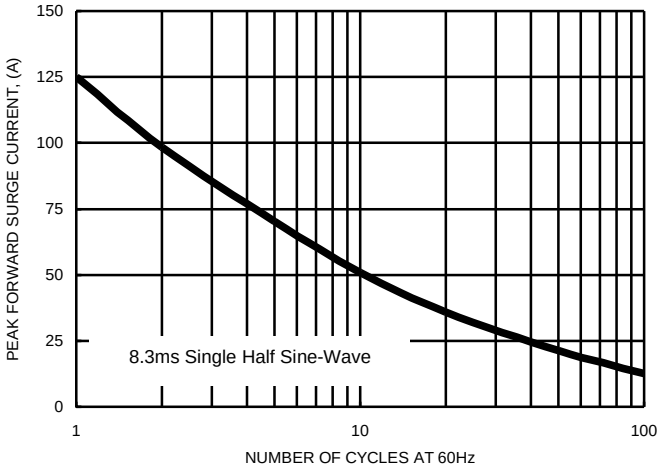


FIG.3- TYPICAL JUNCTION CAPACITANCE

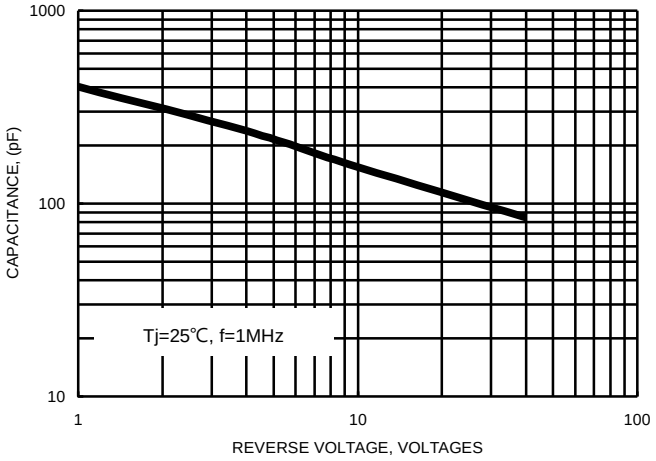


FIG.4- TYPICAL FORWARD CHARACTERISTICS

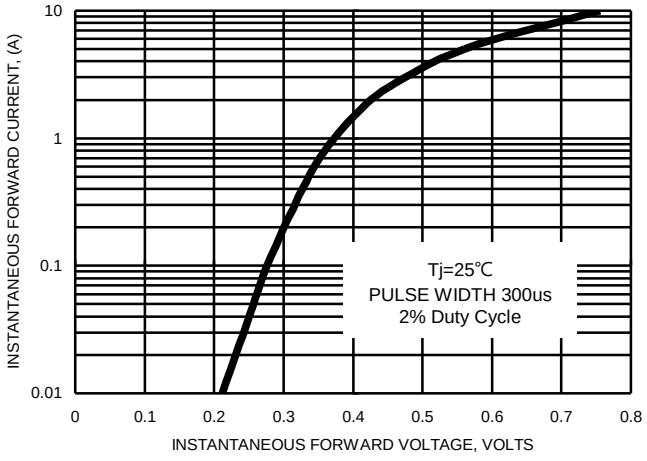


FIG.5- TYPICAL REVERSE CHARACTERISTICS

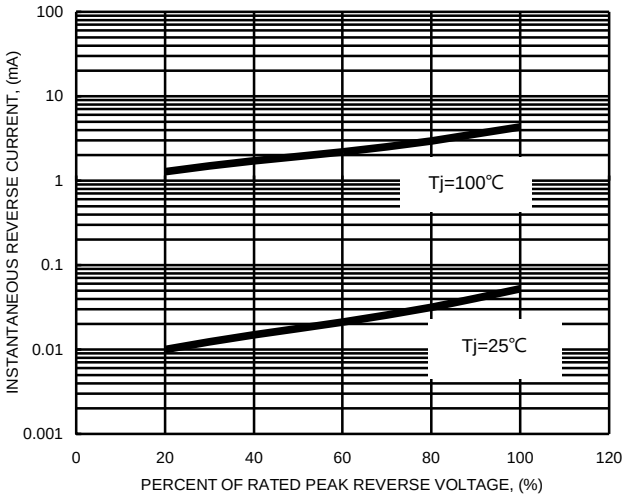
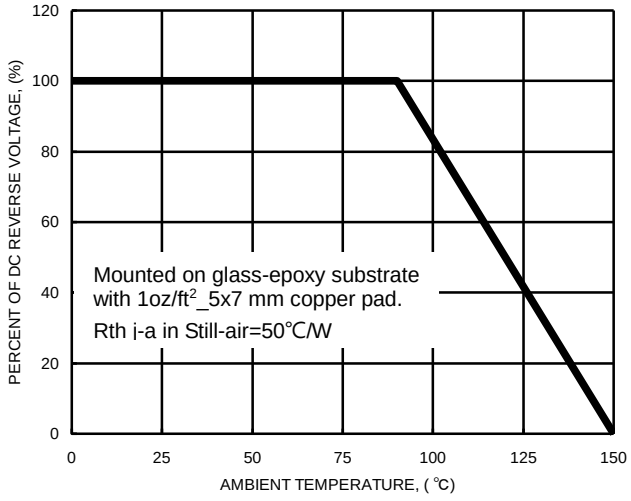


FIG.6- DC REVERSE VOLTAGE DERATING CURVE

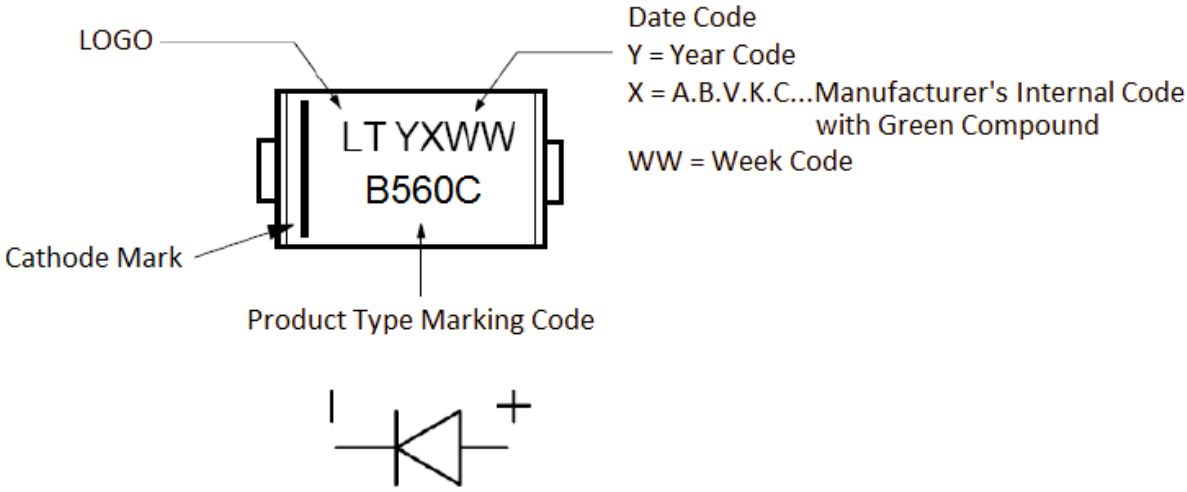


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Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
B560C	SMC	3000	Tape & Reel

Marking Information :



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