

**SHOTTKY RECTIFIERS**

**REVERSE VOLTAGE – 40 Volts**  
**FORWARD CURRENT – 2.0 Amperes**

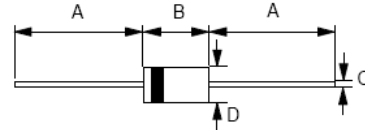
**FEATURES**

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection application
- IEC 61000-4-2, level 4 (ESD), > 15KV (air)
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

**MECHANICAL DATA**

- Package: JEDEC DO-15 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.015 ounces, 0.4 grams
- Mounting position: Any

**DO-15**



DO-15		
Dim.	Min.	Max.
A	25.4	-
B	5.80	7.60
C	0.71 $\varnothing$	0.86 $\varnothing$
D	2.60 $\varnothing$	3.60 $\varnothing$
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	SB240	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Maximum RMS Voltage	$V_{RMS}$	28	V
Maximum DC Blocking Voltage	VDC	40	V
Maximum Average Forward Rectified Current	$I_{AV}$	2.0	A
Peak Forward Surge 8.3ms single half sine-wave super imposed on rated load	$I_{FSM}$	60	A
Maximum forward Voltage at 2.0A DV Maximum forward Voltage at 1.5A DV	$V_F$	0.55 ---	V
Maximum DC Reverse Current @ $T_j=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_j=100^\circ\text{C}$	$I_R$	0.15 15	mA
Typical thermal Resistance (Note 4)	$R_{\theta JC}$	15	$^\circ\text{C/W}$
	$R_{\theta JL}$	18	
	$R_{\theta JA}$	45	
Typical Junction Capacitance (Note 5)	$C_j$	150	pF
Operating Junction Temperature Range	$T_j$	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

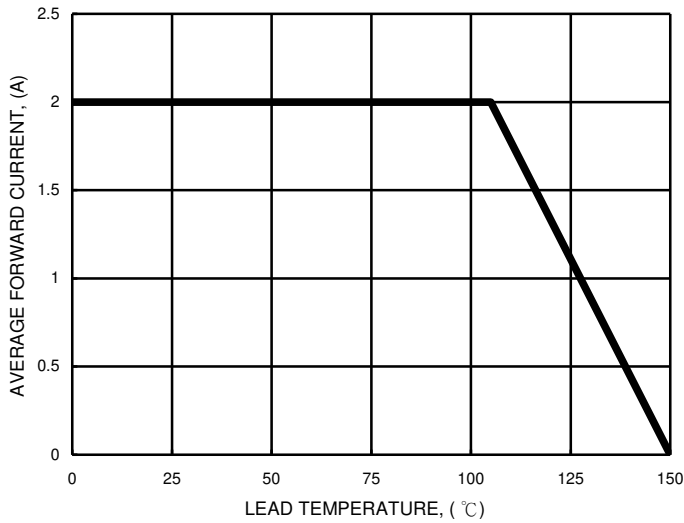
**Notes:**

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. Thermal Resistance Junction to Case, Lead and Ambient.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

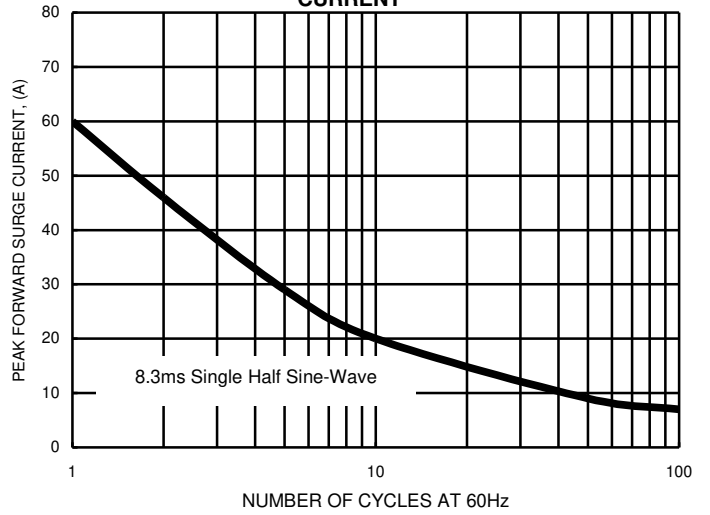
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**RATING AND CHARACTERISTIC CURVES**  
**SB240**

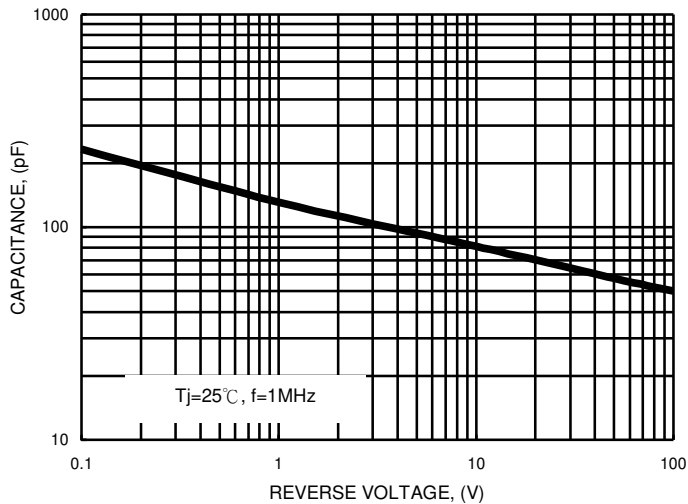
**FIG.1- FORWARD CURRENT DERATING CURVE**



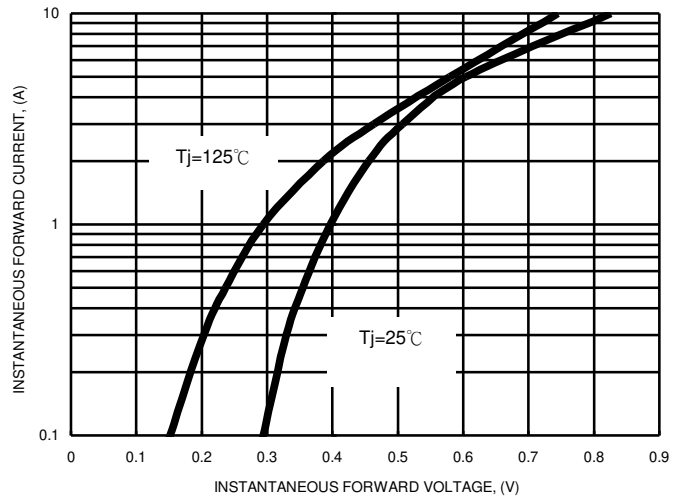
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



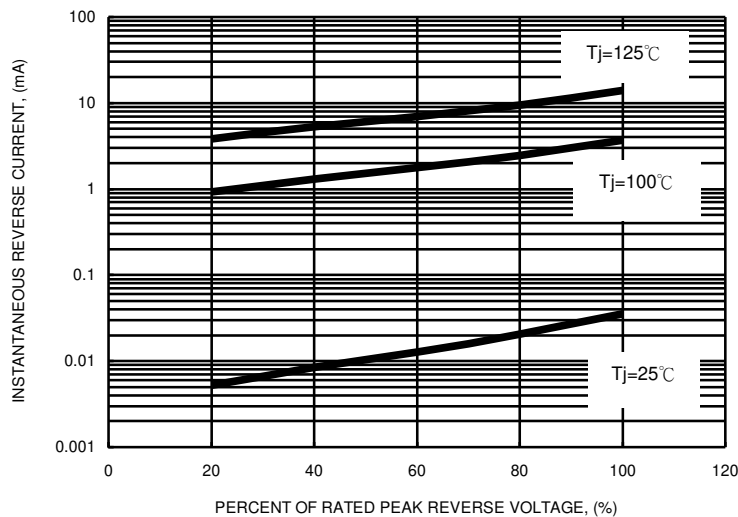
**FIG.3- TYPICAL JUNCTION CAPACITANCE**



**FIG.4- TYPICAL FORWARD CHARACTERISTICS**



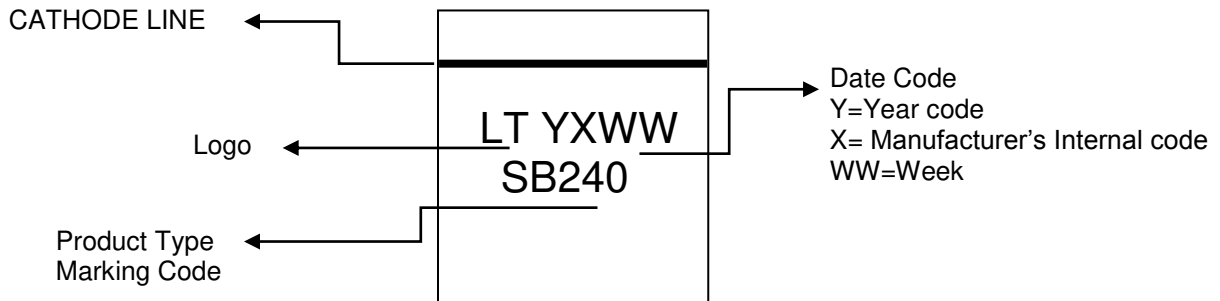
**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



**Ordering Information:**

Part Number	Package	Packing	
		Qty.	Carrier
SB240	DO-15	4000	Tape & Reel
SB240-A52	DO-15	2000	Ammo Box

**Marking Information:**



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