

**NOT RECOMMENDED FOR NEW DESIGN  
USE SB160**

**SCHOTTKY BARRIER RECTIFIERS**

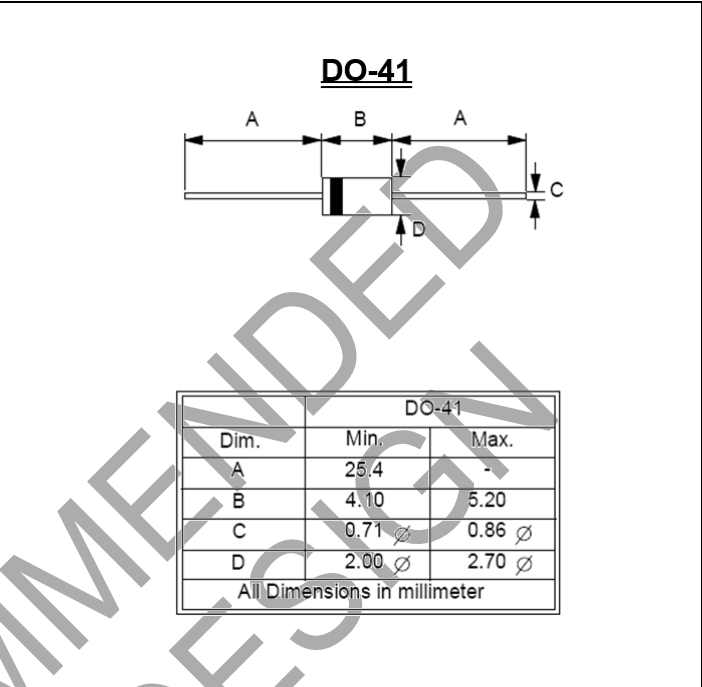
**REVERSE VOLTAGE – 60 Volts  
FORWARD CURRENT – 1.0 Amperes**

**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-41 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.012 ounces, 0.34 grams
- Mounting position: Any



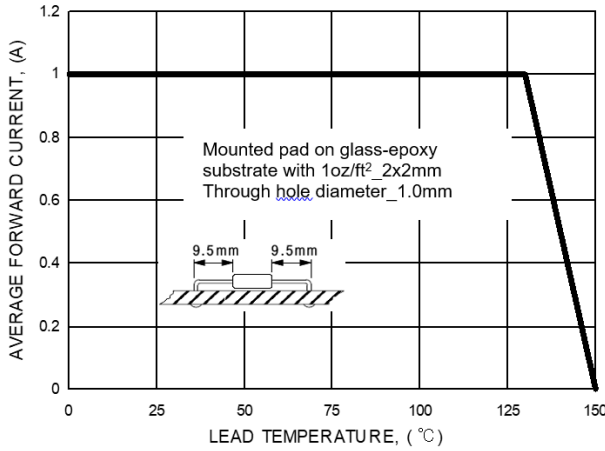
**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**  
Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	SB160	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 0.395" (9.5mm) Lead length @ $T_L=130^{\circ}C$	$I_{AV}$	1.0	A
Peak Forward Surge 8.3ms single half sine-wave super imposed on rated load	$I_{FSM}$	40	A
Maximum forward Voltage at 1.0A DC	$V_F$	0.7	V
Maximum DC Reverse Current @ $T_j=25^{\circ}C$ at Rated DC Blocking Voltage @ $T_j=100^{\circ}C$	$I_R$	0.05 10	mA
Typical Junction Capacitance (Note 4)	$C_j$	50	pF
Typical Thermal Resistance (Note 5)	$R_{\theta JA}$	60	°C/W
	$R_{\theta JL}$	30	
	$R_{\theta JC}$	25	
Operating Temperature Range	$T_j$	-55 to +150	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C

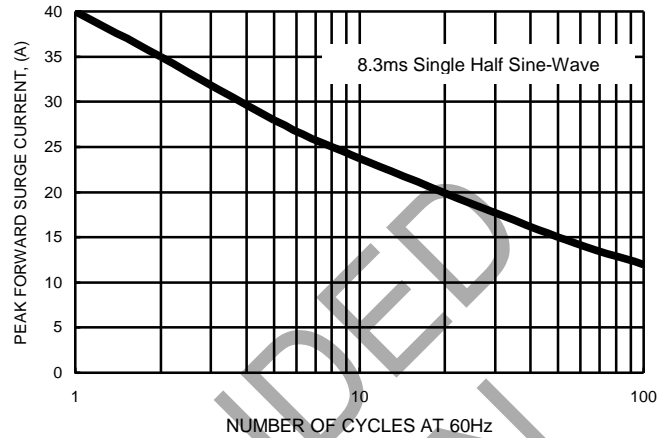
- Notes :**
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
  2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
  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 Ambient, Lead and Case.

**RATING AND CHARACTERISTIC CURVES**  
**SB160**

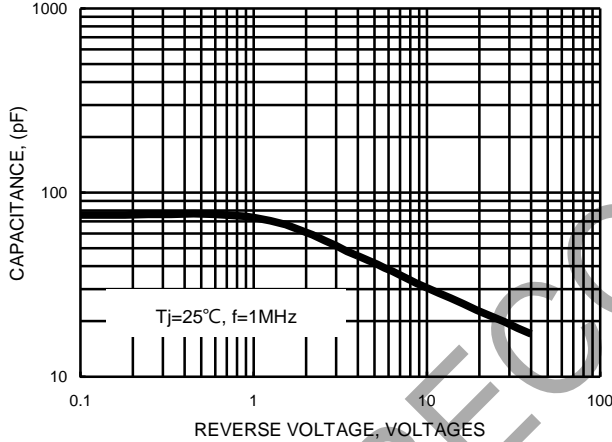
**FIG.1- FORWARD CURRENT DERATING CURVE**



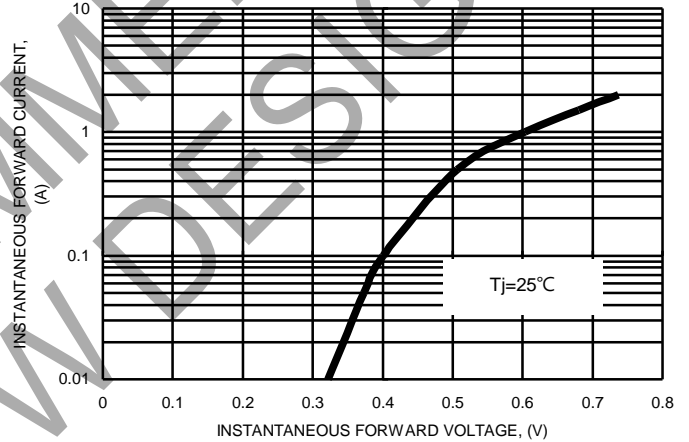
**FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT**



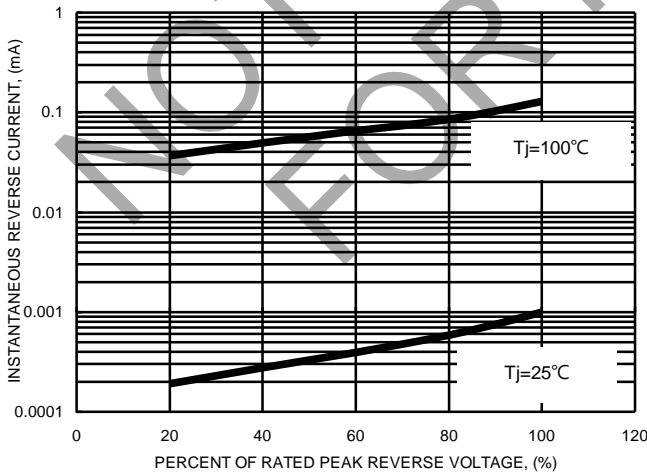
**FIG.3- TYPICAL JUNCTION CAPACITANCE**



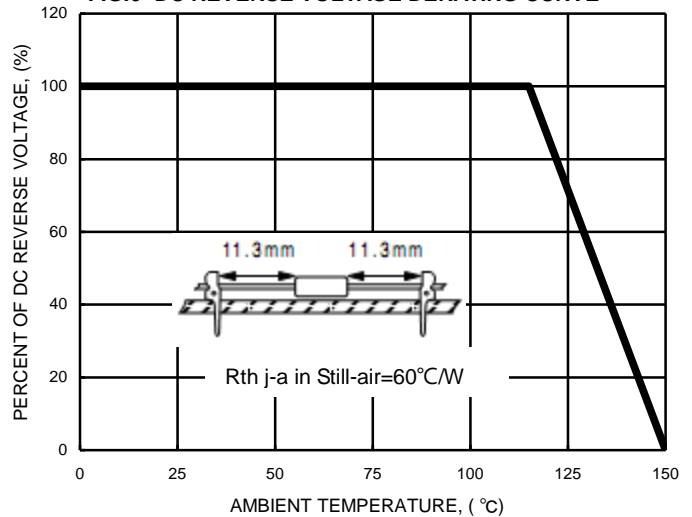
**FIG.4- TYPICAL FORWARD CHARACTERISTICS**



**FIG.5- TYPICAL REVERSE CHARACTERISTICS**



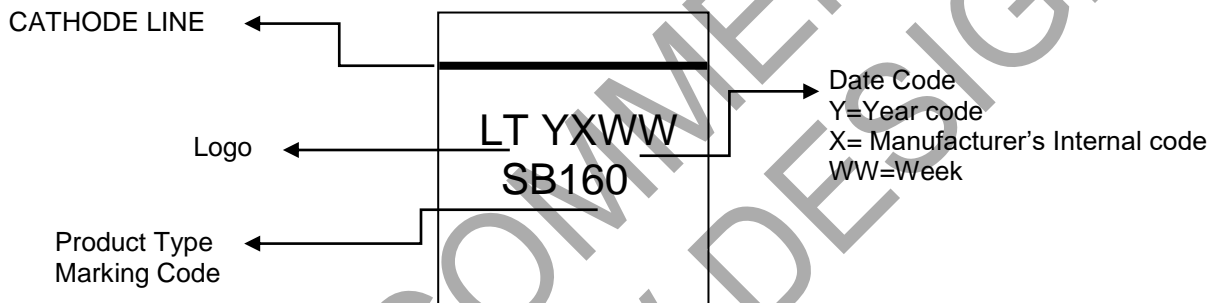
**FIG.6- DC REVERSE VOLTAGE DERATING CURVE**



**Ordering Information:**

Part Number	Package	Packing	
		Qty.	Carrier
SB160	DO-41	5000	Tape & Reel

**Marking Information:**



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