

## LOW VF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**REVERSE VOLTAGE - 40 Volts**  
**FORWARD CURRENT - 2.0 Ampere**

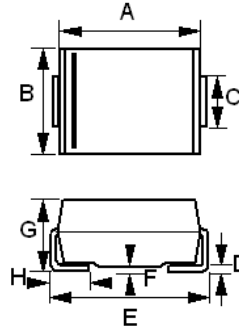
### FEATURES

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

### MECHANICAL DATA

- Package: Molded plastic
- Polarity : Indicated by cathode band
- Weight : 0.003 ounces, 0.093 grams

### SMB



SMB		
DIM.	MIN.	MAX.
A	4.06	4.57
B	3.30	3.94
C	1.96	2.21
D	0.15	0.31
E	5.21	5.59
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	B240L	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	40	V
Maximum RMS Voltage	$V_{RMS}$	28	V
Maximum DC Blocking Voltage	$V_{DC}$	40	V
Maximum Average Forward Rectified Current @ $T_C=100^\circ\text{C}$	$I_{(AV)}$	2.0	A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	$I_{FSM}$	25	A
Maximum Instantaneous Forward Voltage @ $I_F=2\text{A}; T_J=25^\circ\text{C}$ @ $I_F=2\text{A}; T_J=125^\circ\text{C}$ @ $I_F=4\text{A}; T_J=25^\circ\text{C}$ @ $I_F=4\text{A}; T_J=125^\circ\text{C}$	$V_F$	0.43 0.375 0.54 0.55	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ $V_R=20\text{V}; T_J=25^\circ\text{C}$ @ $V_R=20\text{V}; T_J=100^\circ\text{C}$ @ $V_R=40\text{V}; T_J=25^\circ\text{C}$ @ $V_R=40\text{V}; T_J=100^\circ\text{C}$	$I_R$	0.5 40 2.0 60	mA
Typical Junction Capacitance (Note 4)	$C_J$	200	pF
Typical Thermal Resistance (Note 5)	$R_{\theta JL}$	18	$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 to +125	$^\circ\text{C}$
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.

**RATING AND CHARACTERISTIC CURVES**  
**B240L**

FIG.1 - FORWARD CURRENT DERATING CURVE

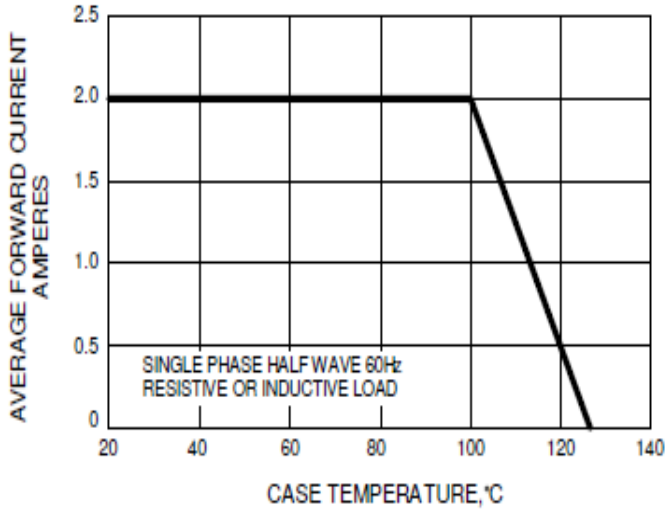


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

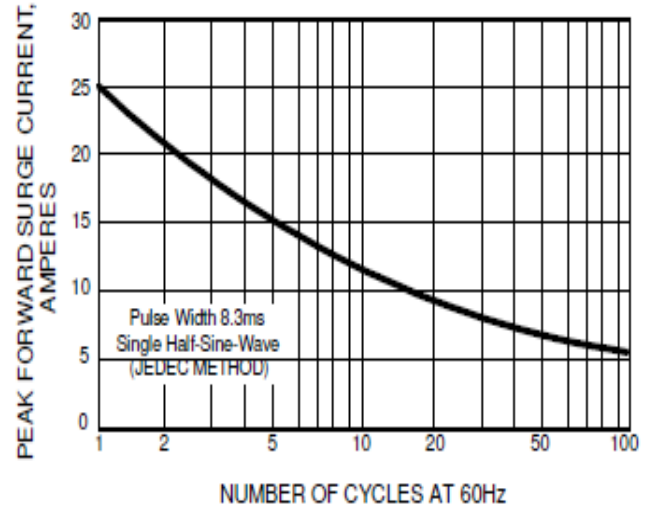


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

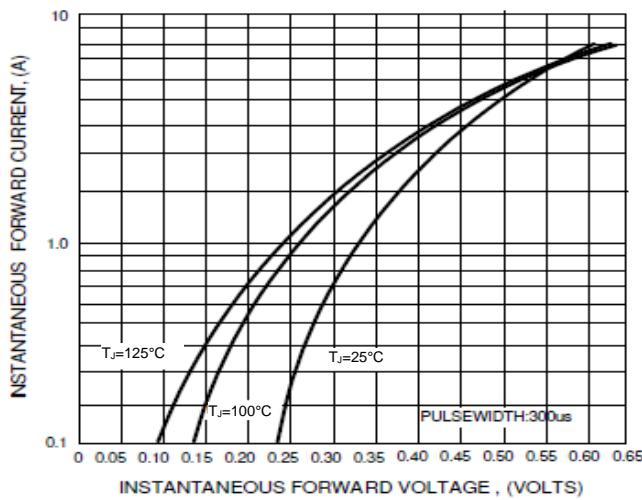


FIG.4 - TYPICAL JUNCTION CAPACITANCE

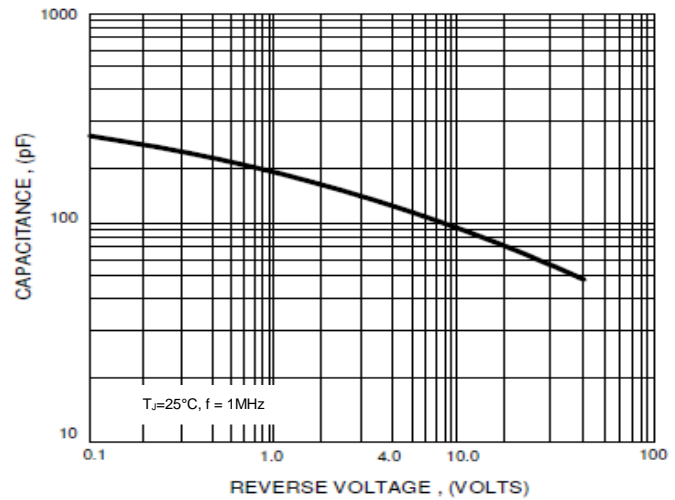
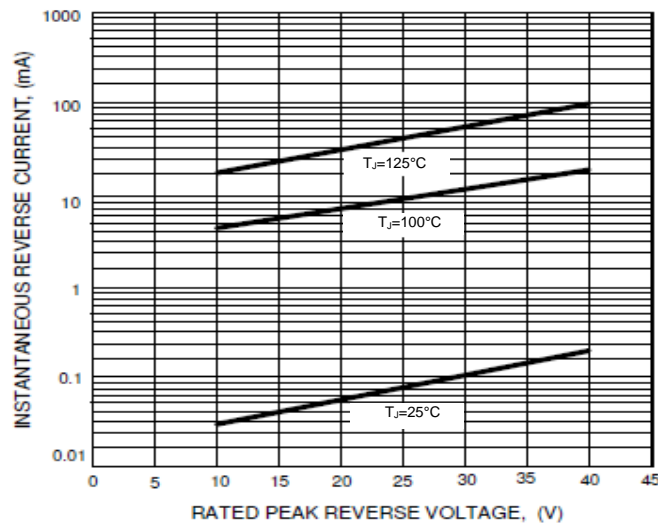


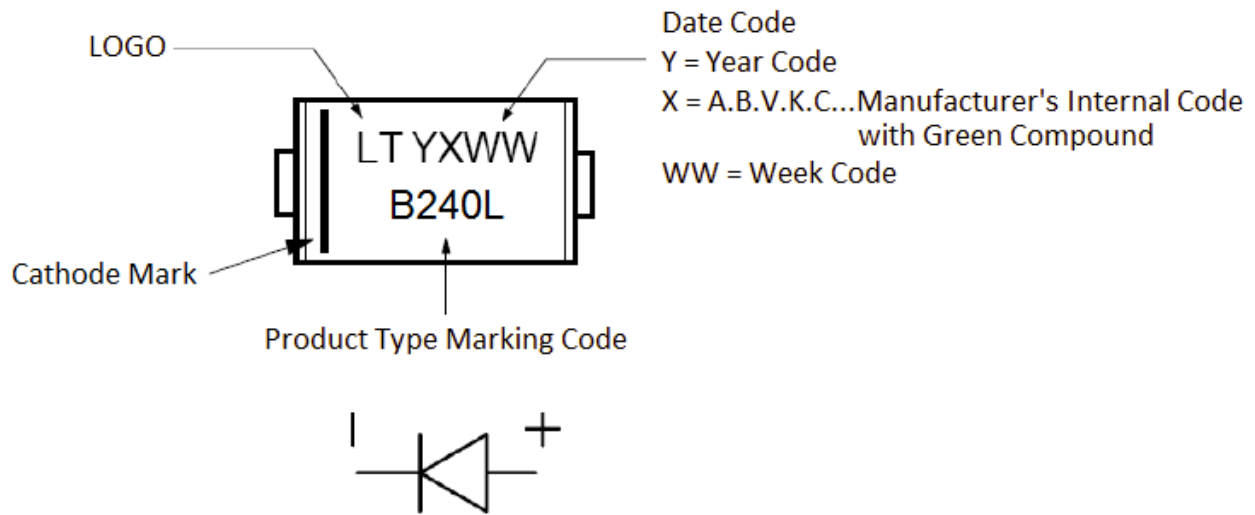
FIG.5 - TYPICAL REVERSE CHARACTERISTICS



**Ordering Information :**

Part Number	Package	Packing	
		Qty.	Carrier
B240L	SMB	3000 pcs	Tape & Reel

**Marking Information :**



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