

**LOW VF SURFACE MOUNT  
SCHOTTKY BARRIER RECTIFIERS**

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

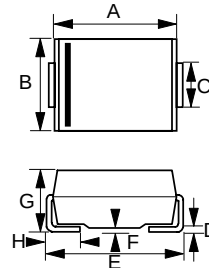
**FEATURES**

- For surface mounted applications
- Metal-Semiconductor junction with guardring
- Epitaxial construction
- Very Low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

**MECHANICAL DATA**

- Case : Molded plastic
- Polarity : Indicated by cathode band
- Weight : 0.002 ounces, 0.064 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 | 2.62 |
| H                            | 0.76 | 1.52 |
| 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          | 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 @ $T_C = 100^\circ C$                                                                                                                                       | $I_{(AV)}$      | 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<br>@ $I_F = 2A; T_J = 25^\circ C$<br>@ $I_F = 2A; T_J = 125^\circ C$<br>@ $I_F = 4A; T_J = 25^\circ C$<br>@ $I_F = 4A; T_J = 125^\circ C$                       | $V_F$           | 0.43<br>0.375<br>0.54<br>0.55 | V            |
| Maximum DC Reverse Current at Rated DC Blocking Voltage<br>@ $V_R = 20V; T_J = 25^\circ C$<br>@ $V_R = 20V; T_J = 100^\circ C$<br>@ $V_R = 40V; T_J = 25^\circ C$<br>@ $V_R = 40V; T_J = 100^\circ C$ | $I_R$           | 0.5<br>40<br>2.0<br>60        | mA           |
| Typical Junction Capacitance (Note 1)                                                                                                                                                                 | $C_J$           | 200                           | pF           |
| Typical Thermal Resistance (Note 2)                                                                                                                                                                   | $R_{\theta JL}$ | 18                            | $^\circ C/W$ |
| Operating Temperature Range                                                                                                                                                                           | $T_J$           | -55 to +125                   | $^\circ C$   |
| Storage Temperature Range                                                                                                                                                                             | $T_{STG}$       | -55 to +150                   | $^\circ C$   |

NOTES : 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2. Thermal Resistance Junction to lead.

REV. 1, 25-Mar-2002, KSHB11

FIG.1 - FORWARD CURRENT DERATING CURVE

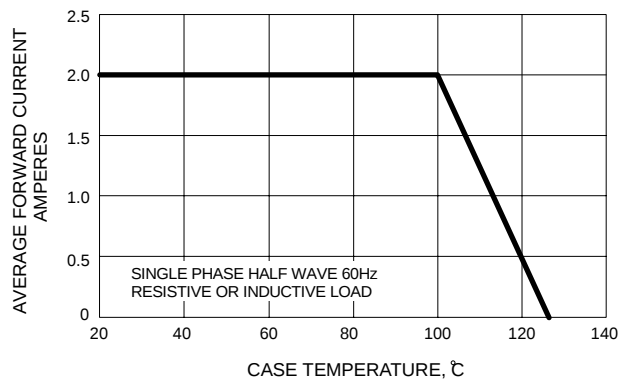


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

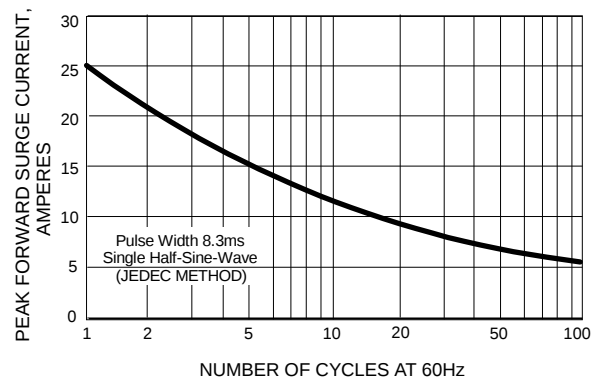


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

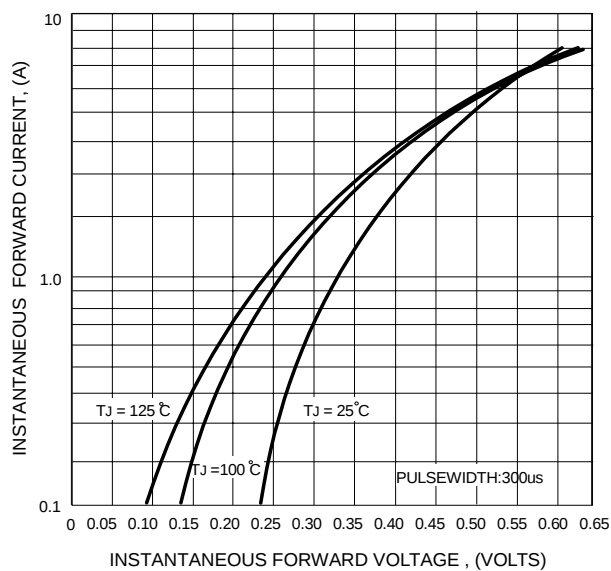


FIG.4 - TYPICAL JUNCTION CAPACITANCE

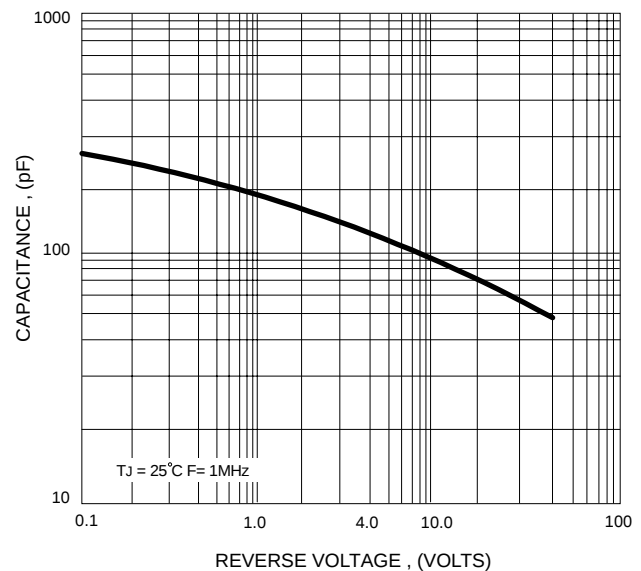


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

