

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE: 20 --- 60 V  
CURRENT: 3.0 A

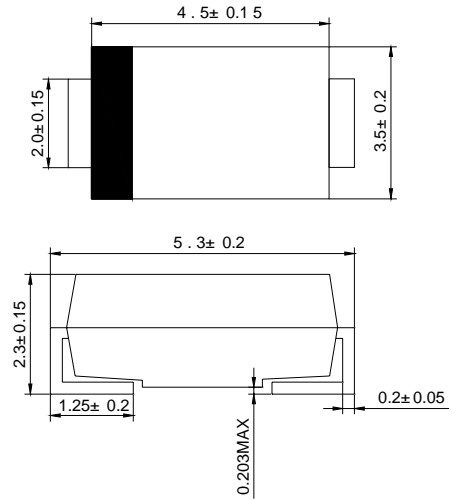
#### FEATURES

- Plastic package has Underwriters Laborator Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal silicon junction, majority carrier conduction
- High surge capability
- High current capability, low forward voltage drop
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

#### MECHANICAL DATA

- Case: JEDEC DO-214AA, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.003 ounces, 0.093 gram

#### DO - 214AA(SMB)



Dimensions in millimeters

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

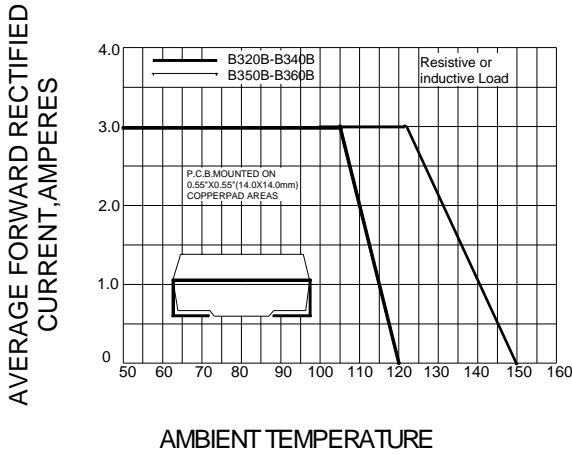
Ratings at 25°C ambient temperature unless otherwise specified

|  |            | B320B        | B330B | B340B | B350B        | B360B | UNITS              |
|--|------------|--------------|-------|-------|--------------|-------|--------------------|
| Maximum recurrent peak reverse voltage   | $V_{RRM}$  | 20           | 30    | 40    | 50           | 60    | V                  |
| Maximum RMS voltage  | $V_{RWS}$  | 14           | 21    | 28    | 35           | 42    | V                  |
| Maximum DC blocking voltage  | $V_{DC}$   | 20           | 30    | 40    | 50           | 60    | V                  |
| Maximum average forward rectified current at $T_L$ (SEE FIG. 1) (NOTE 2)   | $I_{(AV)}$ | 3.0          |       |       |              |       | A                  |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)                       | $I_{FSM}$  | 100.0        |       |       |              |       | A                  |
| Maximum instantaneous forward voltage at 3.0A (NOTE 1)   | $V_F$      | 0.50         |       |       | 0.70         |       | V                  |
| Maximum DC reverse current @ $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage (NOTE 1) @ $T_A=100^\circ\text{C}$ | $I_R$      | 0.5          |       |       |              |       | mA                 |
|  |            | 20           |       |       |              |       |                    |
| Typical thermal resistance (NOTE 2)  | $R_{JA}$   | 50.0         |       |       |              |       | $^\circ\text{C/W}$ |
|  | $R_{JL}$   | 10.0         |       |       |              |       |                    |
| Operating junction and storage temperature range   | $T_{STG}$  | -65 --- +150 |       |       |              |       | $^\circ\text{C}$   |
| Storage temperature range  | $T_J$      | -65 --- +150 |       |       | -65 --- +150 |       | $^\circ\text{C}$   |

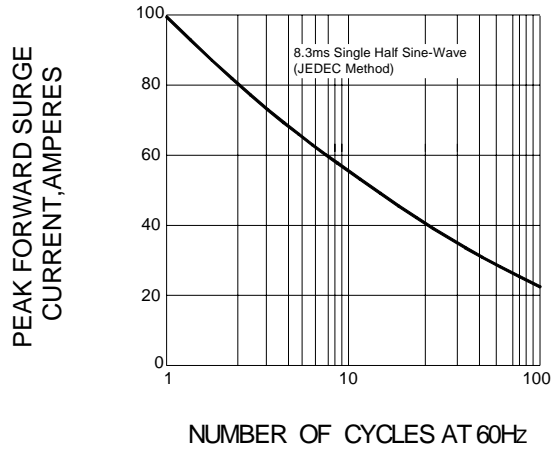
NOTE: 1. Pulse test: 300  $\mu\text{s}$  pulse width, 1% duty cycle

2. P.C.B. mounted with 0.55"X0.55" (14.0X14.0mm<sup>2</sup>) copper pad areas

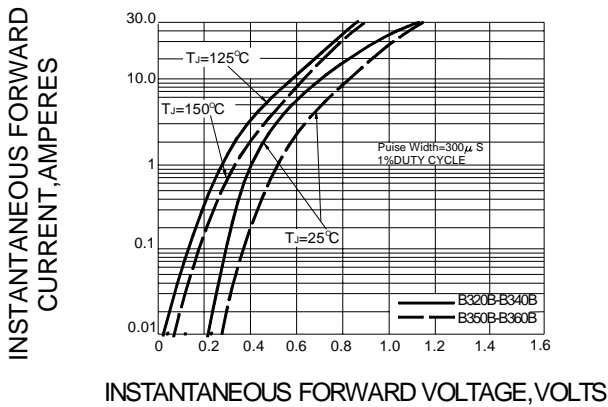
**FIG.1 – FORWARD DERATING CURVE**



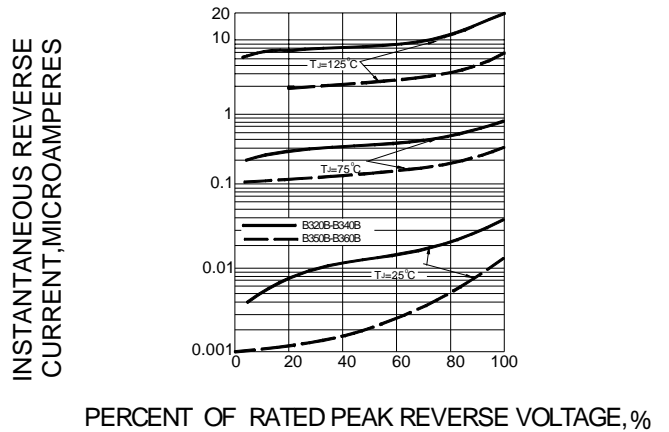
**FIG.2– PEAK FORWARD SURGE CURRENT**



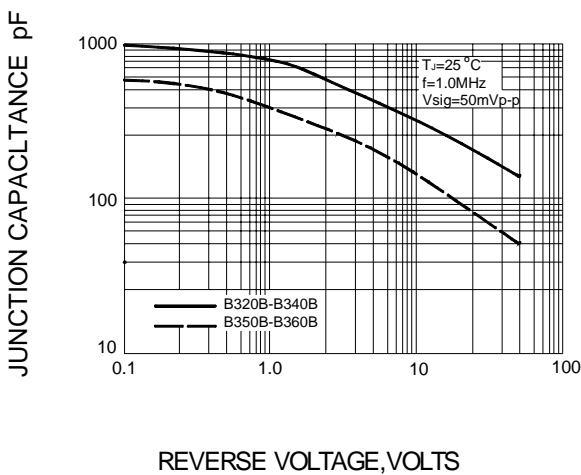
**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**



**FIG.6– TYPICAL TRANSIENT THERMAL IMPEDANCE**

