



## B220A — B260A

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

REVERSE VOLTAGE: 20 --- 60 V CURRENT: 2.0 A

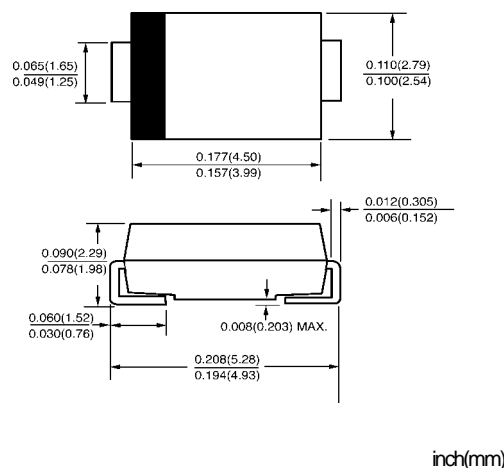
#### FEATURES

- ◇ Plastic package has Underwriters Laboratory 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-214AC, molded plastic over passivated chip
- ◇ Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: Color band denotes cathode end
- ◇ Weight: 0.002 ounces, 0.064 gram

#### DO - 214AC(SMA)



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

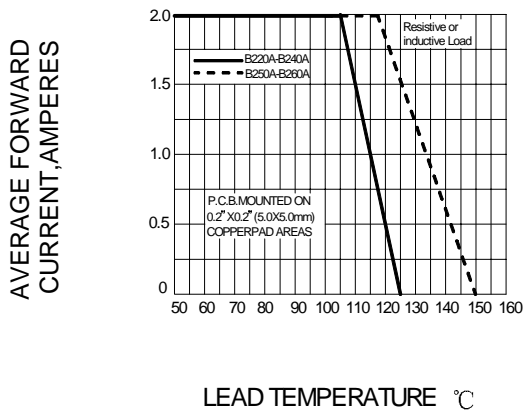
Ratings at 25°C ambient temperature unless otherwise specified

|   |                 | B220A        | B230A | B240A | B250A        | B260A | UNITS              |
|---|-----------------|--------------|-------|-------|--------------|-------|--------------------|
| Device marking code   |                 | B2A          | B3A   | B4A   | B5A          | B6A   |                    |
| 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 $T_c$ (SEE FIG.1)  | $I_{(AV)}$      | 2.0          |       |       |              |       | A                  |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)                      | $I_{FSM}$       | 50.0         |       |       |              |       | A                  |
| Maximum instantaneous forward voltage at 2.0A (NOTE.1)  | $V_F$           | 0.5          |       |       | 0.7          |       | V                  |
| Maximum DC reverse current (NOTE1) @ $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage @ $T_A=100^\circ\text{C}$ | $I_R$           | 0.5<br>20.0  |       |       |              |       | mA                 |
| Typical junction capacitance (NOTE2)  | $R_{\theta JL}$ | 15.0         |       |       |              |       | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range  | $T_{STG}$       | -65 --- +150 |       |       |              |       | $^\circ\text{C}$   |
| Storage temperature range   | $T_J$           | -65 --- +150 |       |       | -65 --- +150 |       | $^\circ\text{C}$   |

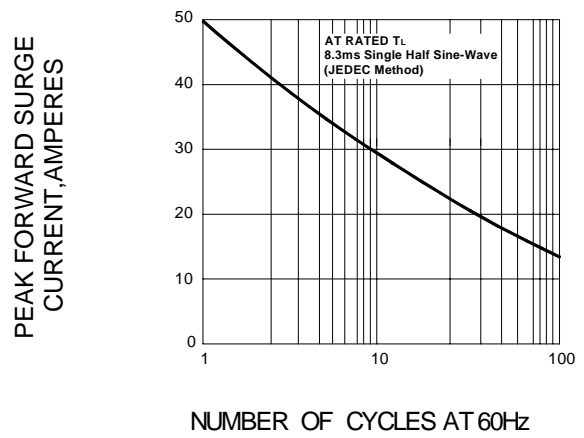
NOTE: 1. Pulse test: 300  $\mu$ s pulse width, 1% duty cycle

2. P.C.B. mounted with 0.2"X0.2"(5.0X5.0mm<sup>2</sup>) copper pad areas

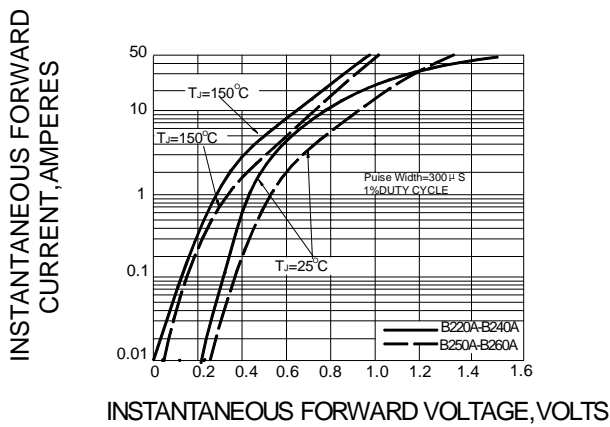
**FIG.1 – FORWARD DERATING CURVE**



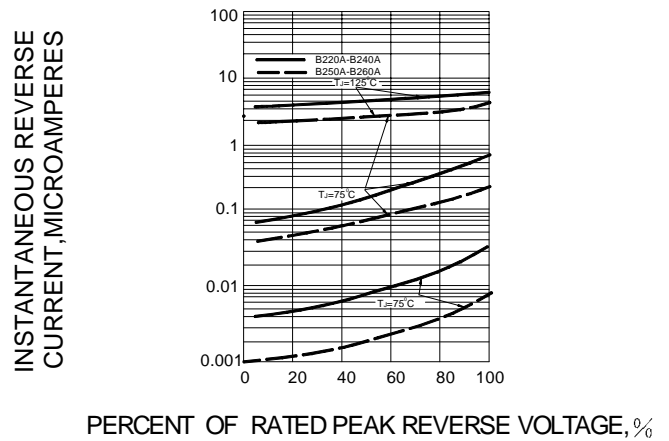
**FIG.2- PEAK FORWARD SURGE CURRENT**



**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

