

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

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

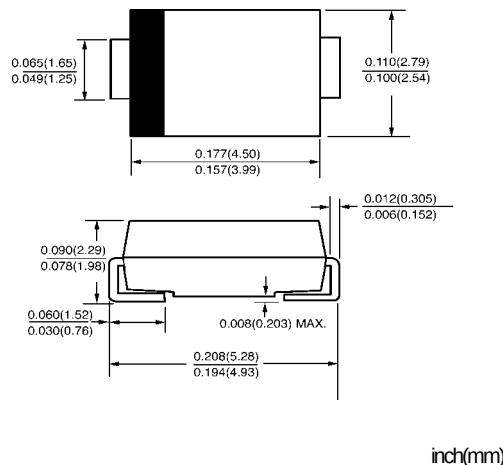
#### FEATURES

- ◇ 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

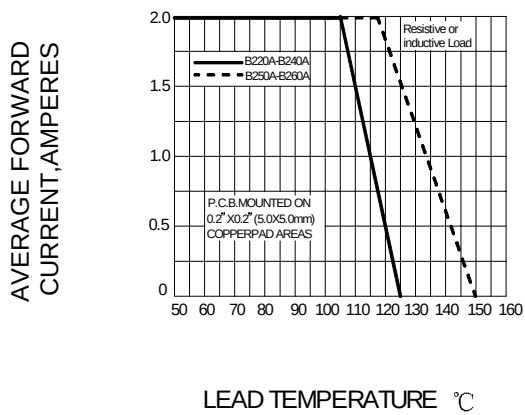
|                                                                                                                 |                   | B220A       | B230A | B240A | B250A       | B260A | UNITS |
|-----------------------------------------------------------------------------------------------------------------|-------------------|-------------|-------|-------|-------------|-------|-------|
| Device marking code                                                                                             |                   | B2A         | B3A   | B4A   | B5A         | B6A   |       |
| Maximum recurrent peak reverse voltage                                                                          | V <sub>RRM</sub>  | 20          | 30    | 40    | 50          | 60    | V     |
| Maximum RMS voltage                                                                                             | V <sub>RWS</sub>  | 14          | 21    | 28    | 35          | 42    | V     |
| Maximum DC blocking voltage                                                                                     | V <sub>DC</sub>   | 20          | 30    | 40    | 50          | 60    | V     |
| Maximum average forw ord rectified current at T <sub>L</sub> (SEE FIG.1)                                        | I <sub>(AV)</sub> | 2.0         |       |       |             |       | A     |
| Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load(JEDEC Method)               | I <sub>FSM</sub>  | 50.0        |       |       |             |       | A     |
| Maximum instantaneous forw ard voltage at 2.0A(NOTE.1)                                                          | V <sub>F</sub>    | 0.5         |       |       | 0.7         |       | V     |
| Maximum DC reverse current (NOTE1) @T <sub>A</sub> =25°C<br>at rated DC blockjng voltage @T <sub>A</sub> =100°C | I <sub>R</sub>    | 0.5<br>20.0 |       |       |             |       | mA    |
| Typical junction capacitance (NOTE2)                                                                            | R <sub>θJL</sub>  | 15.0        |       |       |             |       | °C/W  |
| Operating junction and storage temperature range                                                                | T <sub>STG</sub>  | -65--- +150 |       |       |             |       | °C    |
| Storage temperature range                                                                                       | T <sub>J</sub>    | -65--- +150 |       |       | -65--- +150 |       | °C    |

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

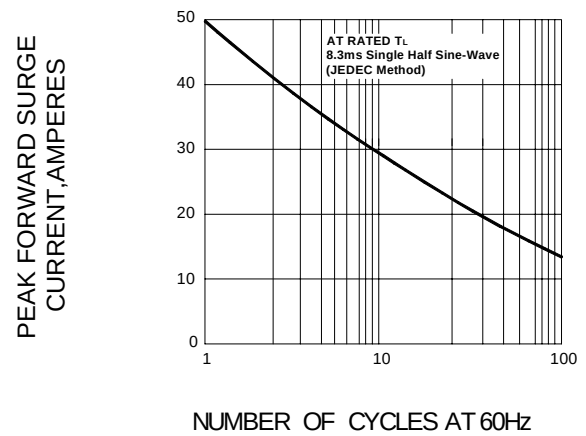
2. P.C.B. mounted with 0.2"X0.2" (5.0X5.0mm<sup>2</sup>) copper pad areas

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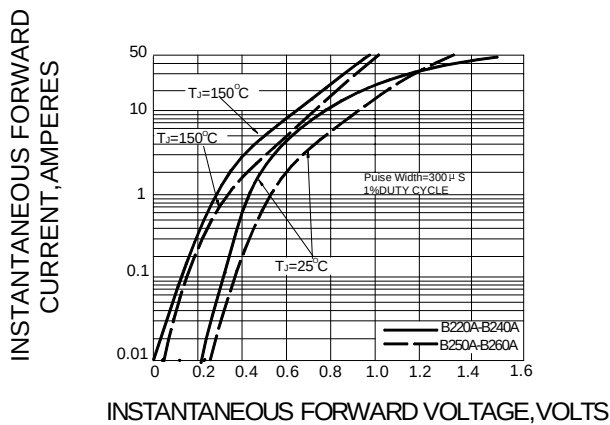
**FIG.1 -- FORWARD DERATING CURVE**



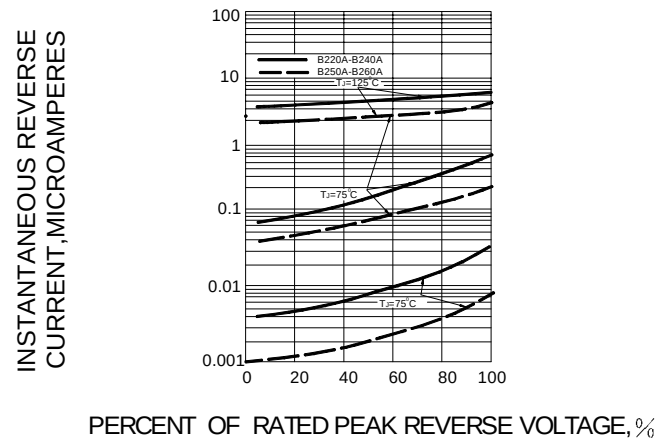
**FIG.2-- PEAK FORWARD SURGE CURRENT**



**FIG.3 -- TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 -- TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**

