



## Silicon Bridge Rectifiers

## RBV35005--RBV3510

### FEATURES

- Rating to 1000V PRV
- Surge overload rating to 400 Amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Lead solderable per MIL-STD-202 method 208



Lead-free

### MECHANICAL DATA

- Polarity: Symbols molded on body
- Weight: 0.23 ounces, 6.6 grams
- Mounting position: Any

### Maximum Ratings (@T<sub>A</sub> = 25°C unless otherwise specified)

| Characteristic                                                                          | Symbol             | RBV35005 | RBV3501 | RBV3502 | RBV3504 | RBV3506 | RBV3508 | RBV3510 | UNITS |
|-----------------------------------------------------------------------------------------|--------------------|----------|---------|---------|---------|---------|---------|---------|-------|
| Maximum recurrent peak reverse voltage                                                  | V <sub>RRM</sub>   | 50       | 100     | 200     | 400     | 600     | 800     | 1000    | V     |
| Maximum RMS voltage                                                                     | V <sub>RMS</sub>   | 35       | 70      | 140     | 280     | 420     | 560     | 700     | V     |
| Maximum DC blocking voltage                                                             | V <sub>DC</sub>    | 50       | 100     | 200     | 400     | 600     | 800     | 1000    | V     |
| Maximum average forward Output current<br>@T <sub>C</sub> =55°C                         | I <sub>F(AV)</sub> | 35.0     |         |         |         |         |         |         | A     |
| Peak forward surge current<br>8.3ms single half-sine-wave<br>superimposed on rated load | I <sub>FSM</sub>   | 400      |         |         |         |         |         |         | A     |

### Thermal Characteristics

| Characteristic                       | Symbol           | RBV35005        | RBV3501 | RBV3502 | RBV3504 | RBV3506 | RBV3508 | RBV3510 | UNITS |
|--------------------------------------|------------------|-----------------|---------|---------|---------|---------|---------|---------|-------|
| Typical thermal resistance           | R <sub>θJC</sub> | 1.5             |         |         |         |         |         |         | °C/W  |
| Operating junction temperature range | T <sub>J</sub>   | - 55 ---- + 150 |         |         |         |         |         |         | °C    |
| Storage temperature range            | T <sub>STG</sub> | - 55 ---- + 150 |         |         |         |         |         |         | °C    |

### Electrical Characteristics (@T<sub>A</sub> = 25°C unless otherwise specified)

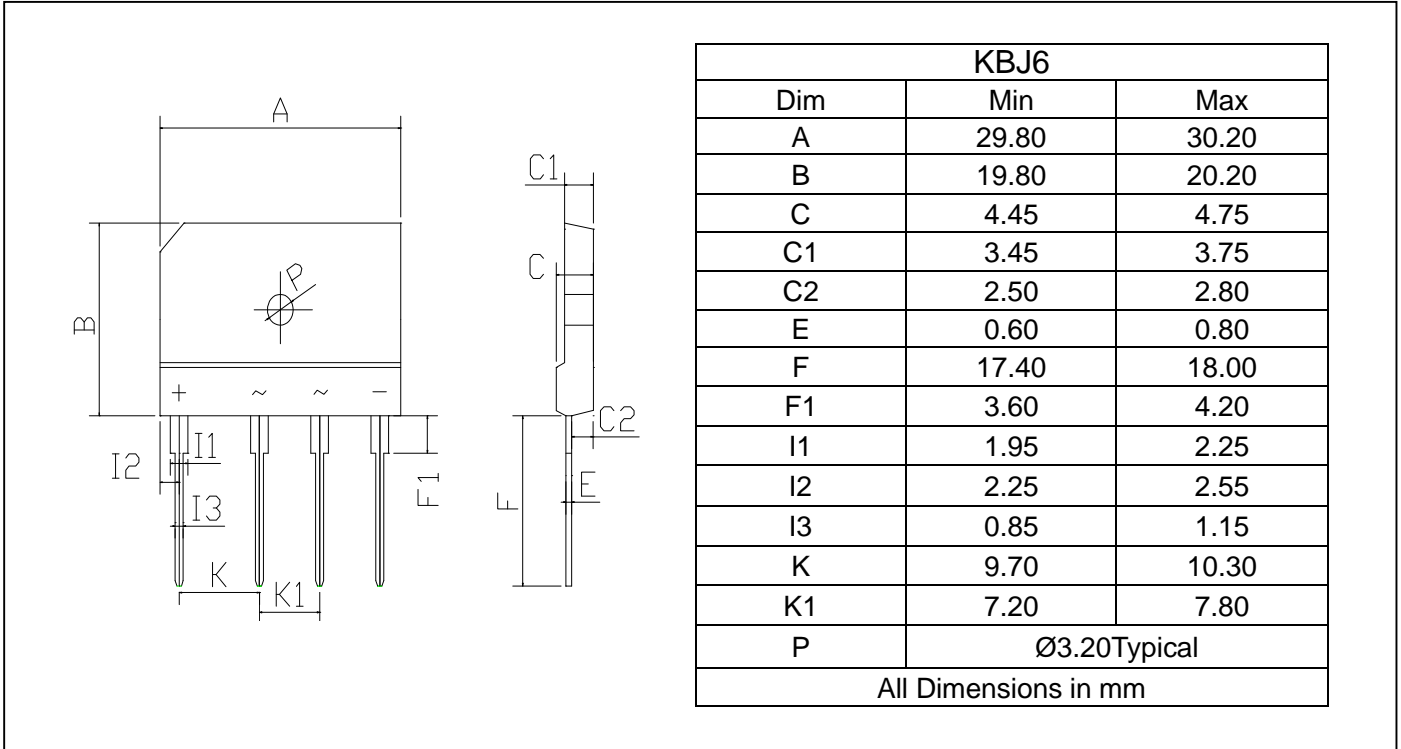
| Characteristic                                                                                        | Symbol         | RBV35005    | RBV3501 | RBV3502 | RBV3504 | RBV3506 | RBV3508 | RBV3510 | UNITS     |
|-------------------------------------------------------------------------------------------------------|----------------|-------------|---------|---------|---------|---------|---------|---------|-----------|
| Maximum instantaneous forward voltage<br>@17.5A                                                       | V <sub>F</sub> | 1.1         |         |         |         |         |         |         | V         |
| Maximum reverse current @T <sub>A</sub> =25 °C<br>at rated DC blocking voltage @T <sub>A</sub> =100°C | I <sub>R</sub> | 10.0<br>0.2 |         |         |         |         |         |         | μ A<br>mA |



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**PACKAGE OUTLINE DIMENSIONS**



**PACKAGE INFORMATION**

| Device            | Package | Shipping      |
|-------------------|---------|---------------|
| RBV35005--RBV3510 | KBJ6    | 250 Units/Box |



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FIG.1 – PEAK FORWARD SURGE CURRENT

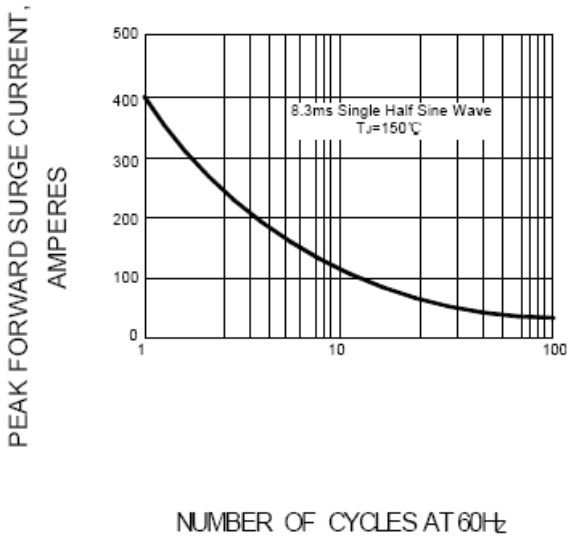


FIG.2 – FORWARD DERATING CURVE

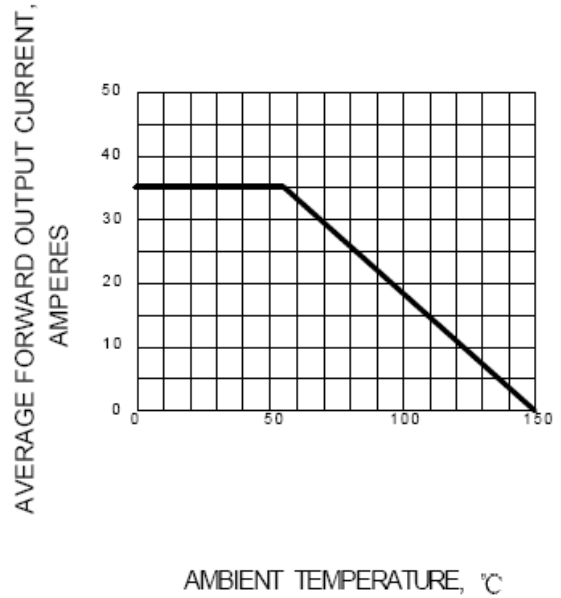


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

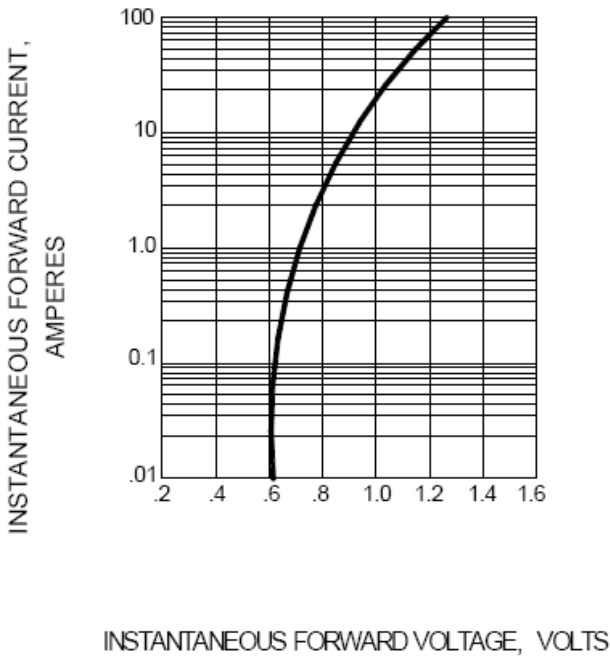


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

