

# Silicon Bridge Rectifier

$V_{RRM} = 50\text{ V} - 1000\text{ V}$   
 $I_F = 10\text{ A}$

## Features

- Types up to 1000 V  $V_{RRM}$
- Low forward voltage drop
- Low leakage current

**BR-10 Package**

## Mechanical Data

Case: Molded plastic body  
 Polarity: Marked on body  
 Mounting position: Any  
 Mounting: Hole for number 6 screw



## Maximum ratings, at $T_j = 25\text{ °C}$ , unless otherwise specified

| Parameter  | Symbol     | Conditions                                   | BR1005     | BR101      | BR102      | BR104      | Unit |
|--|------------|--|------------|------------|------------|------------|------|
| Repetitive peak reverse voltage                      | $V_{RRM}$  |  | 50         | 100        | 200        | 400        | V    |
| RMS reverse voltage                                  | $V_{RMS}$  |  | 35         | 70         | 140        | 280        | V    |
| DC blocking voltage                                  | $V_{DC}$   |  | 50         | 100        | 200        | 400        | V    |
| Continuous forward current                           | $I_F$      | $T_C \leq 50\text{ °C}$                      | 10         | 10         | 10         | 10         | A    |
| Surge non-repetitive forward current, Half Sine Wave | $I_{F,SM}$ | $T_C = 25\text{ °C}$ , $t_p = 8.3\text{ ms}$ | 150        | 150        | 150        | 150        | A    |
| Operating temperature                                | $T_j$      |  | -65 to 150 | -65 to 150 | -65 to 150 | -65 to 150 | °C   |
| Storage temperature                                  | $T_{stg}$  |  | -65 to 150 | -65 to 150 | -65 to 150 | -65 to 150 | °C   |

## Electrical characteristics, at $T_j = 25\text{ °C}$ , unless otherwise specified

| Parameter             | Symbol | Conditions  | BR1005     | BR101      | BR102      | BR104      | Unit          |
|-----------------------|--------|---|------------|------------|------------|------------|---------------|
| Diode forward voltage | $V_F$  | $I_F = 5\text{ A}$ , $T_j = 25\text{ °C}$   | 1.1        | 1.1        | 1.1        | 1.1        | V             |
| Reverse current       | $I_R$  | $V_R = 50\text{ V}$ , $T_j = 25\text{ °C}$<br>$V_R = 50\text{ V}$ , $T_j = 100\text{ °C}$ | 10<br>1000 | 10<br>1000 | 10<br>1000 | 10<br>1000 | $\mu\text{A}$ |

## Thermal characteristics

|                                     |            |  |      |      |      |      |      |
|-------------------------------------|------------|--|------|------|------|------|------|
| Thermal resistance, junction - case | $R_{thJC}$ |  | 9.40 | 9.40 | 9.40 | 9.40 | °C/W |
|-------------------------------------|------------|--|------|------|------|------|------|

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

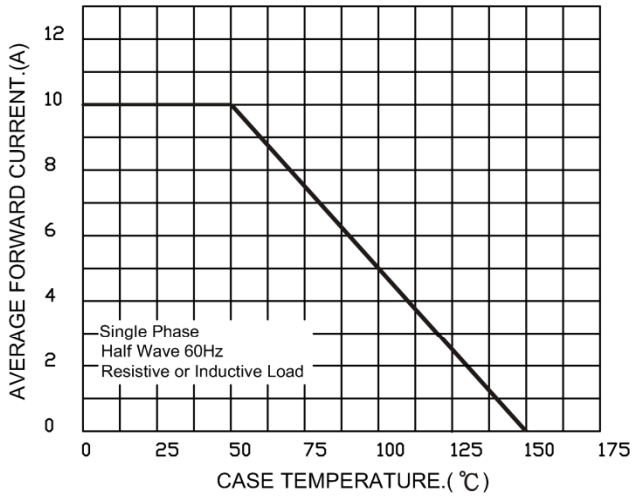


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

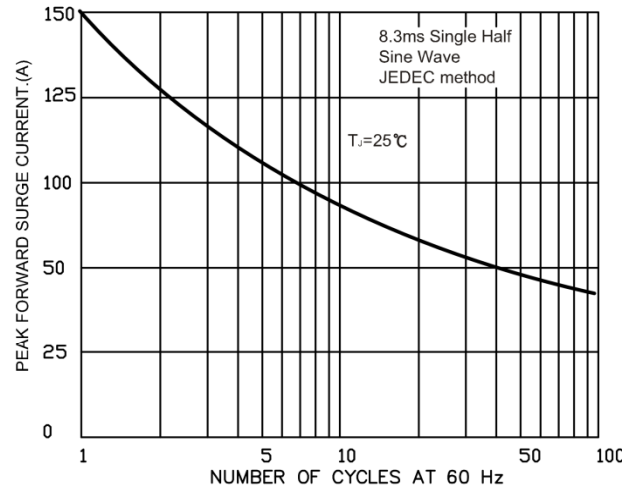


FIG.3-TYPICAL FORWARD CHARACTERISTICS

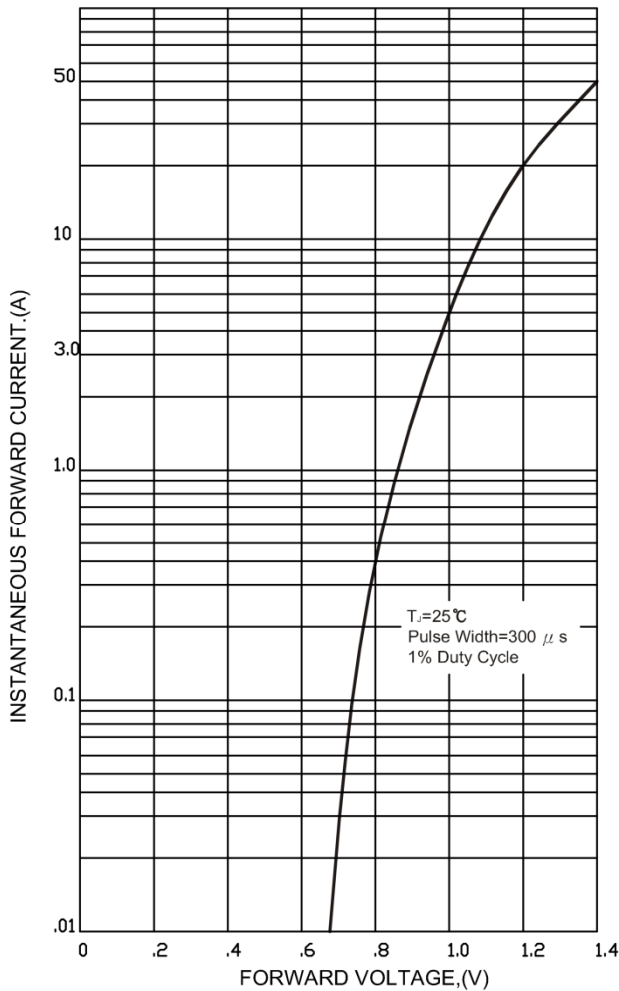


FIG.4-TYPICAL REVERSE CHARACTERISTICS

