

## Single Phase Silicon Bridge Rectifier

$V_{RRM} = 50\text{ V} - 400\text{ V}$

$I_O = 8\text{ A}$

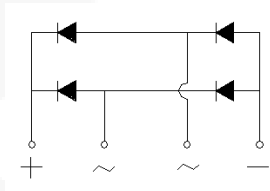
### Features

- Low forward voltage drop
- Low leakage current
- Types from 50 V up to 400 V  $V_{RRM}$
- Not ESD Sensitive

### Mechanical Data

Mounting: Hole thru for #6 screw

Mounting position: Any



BR-8 Package



### Maximum ratings at $T_c = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

| Parameter                       | Symbol    | Conditions | BR805      | BR81       | BR82       | BR84       | 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                  |
| Operating temperature           | $T_j$     |            | -65 to 125 | -65 to 125 | -65 to 125 | -65 to 125 | $^{\circ}\text{C}$ |
| Storage temperature             | $T_{stg}$ |            | -65 to 150 | -65 to 150 | -65 to 150 | -65 to 150 | $^{\circ}\text{C}$ |

### Electrical characteristics at $T_c = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

Single phase, half sine wave, 60 Hz, resistive or inductive load

For capacitive load derate current by 20%

| Parameter                                                     | Symbol    | Conditions                          | BR805 | BR81 | BR82 | BR84 | Unit          |
|---------------------------------------------------------------|-----------|-------------------------------------|-------|------|------|------|---------------|
| Maximum average forward rectified current                     | $I_O$     | $T_c = 50\text{ }^{\circ}\text{C}$  | 8.0   | 8.0  | 8.0  | 8.0  | A             |
| Peak forward surge current                                    | $I_{FSM}$ | $t_p = 8.3\text{ ms}$ , half sine   | 250   | 250  | 250  | 250  | A             |
| Maximum instantaneous forward voltage drop per bridge element | $V_F$     | $I_F = 4.0\text{ A}$                | 1.1   | 1.1  | 1.1  | 1.1  | V             |
| Maximum DC reverse current at rated DC blocking voltage       | $I_R$     | $T_a = 25\text{ }^{\circ}\text{C}$  | 10    | 10   | 10   | 10   | $\mu\text{A}$ |
|                                                               |           | $T_a = 100\text{ }^{\circ}\text{C}$ | 200   | 200  | 200  | 200  |               |

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

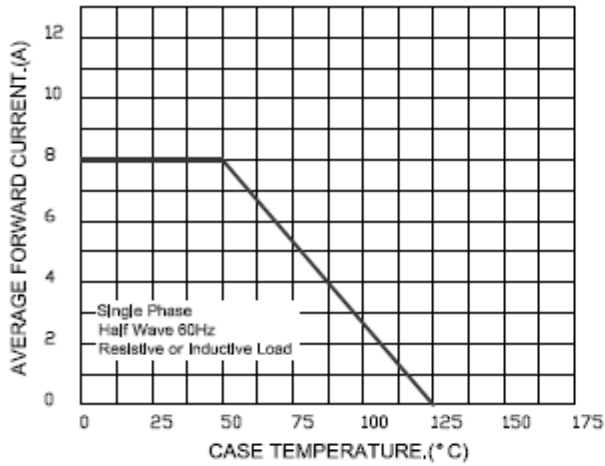


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

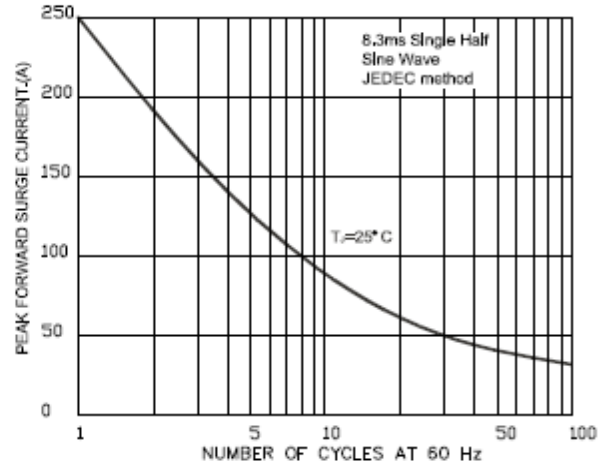


FIG.3-TYPICAL FORWARD CHARACTERISTICS

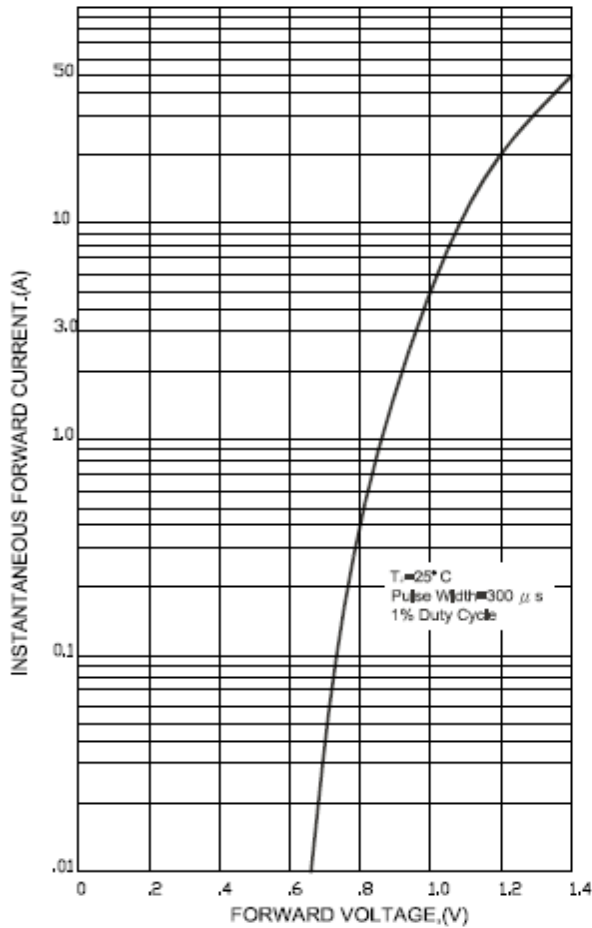
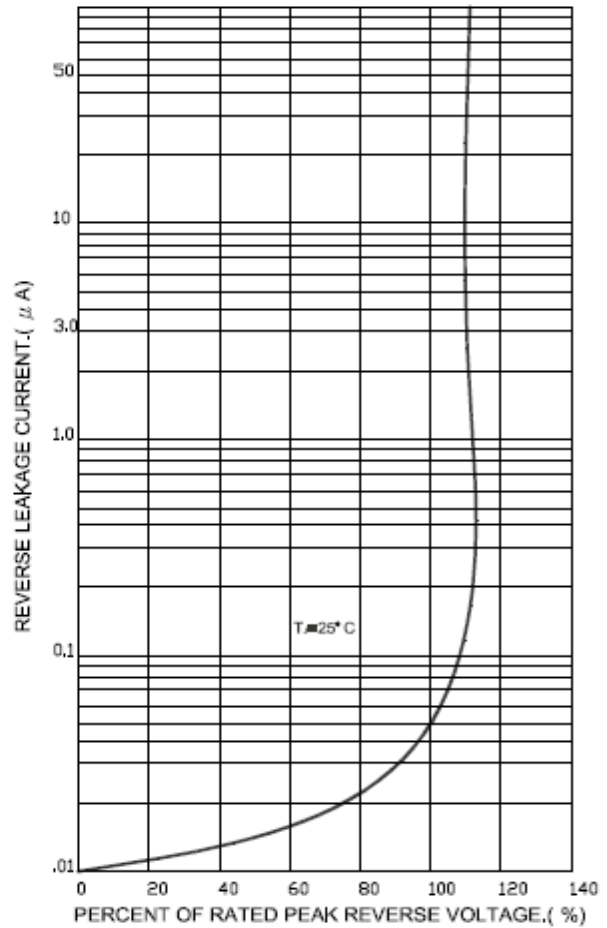
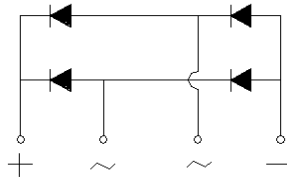
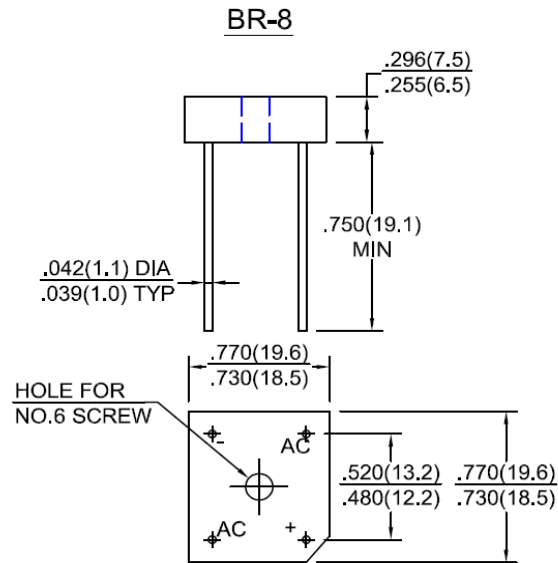


FIG.4-TYPICAL REVERSE CHARACTERISTICS



## Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.



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