

## Single Phase Glass Passivated Silicon Bridge Rectifier

$V_{RRM} = 600\text{ V} - 1000\text{ V}$

$I_O = 10\text{ A}$

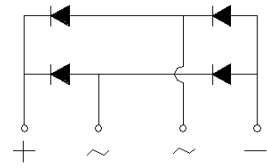
### Features

- Low forward voltage
- High surge overload rating
- Ideal for printed circuit boards
- High temperature soldering: 260°C/ 10 s
- Types from 600 V up to 1000 V  $V_{RRM}$
- Not ESD Sensitive

### Applications

- Switching power supply
- Home appliances, office devices
- Industrial auto-equipments

BR-10 Package



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

| Parameter                       | Symbol    | Conditions | BR106      | BR108      | BR1010     | Unit |
|---------------------------------|-----------|------------|------------|------------|------------|------|
| Repetitive peak reverse voltage | $V_{RRM}$ |            | 600        | 800        | 1000       | V    |
| RMS reverse voltage             | $V_{RMS}$ |            | 420        | 560        | 700        | V    |
| DC blocking voltage             | $V_{DC}$  |            | 600        | 800        | 1000       | V    |
| Operating temperature           | $T_j$     |            | -40 to 150 | -40 to 150 | -40 to 150 | °C   |
| Storage temperature             | $T_{stg}$ |            | -40 to 150 | -40 to 150 | -40 to 150 | °C   |

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

Single phase, half sine wave, 50 Hz, resistive load

For capacitive load derate current by 20%

| Parameter  | Symbol          | Conditions   | BR106 | BR108 | BR1010 | Unit                 |
|--|-----------------|--|-------|-------|--------|----------------------|
| Maximum forward rectified current                    | $I_O$           | $T_C = 40\text{ °C}$   | 10    | 10    | 10     | A                    |
| Peak forward surge current                           | $I_{FSM}$       | $t_p = 8.3\text{ ms}$  | 200   | 200   | 200    | A                    |
| Maximum forward voltage drop                         | $V_F$           | $I_F = 5\text{ A}$   | 1.05  | 1.05  | 1.05   | V                    |
| Maximum reverse current at rated DC blocking voltage | $I_R$           | $T_A = 25\text{ °C}$   | 10    | 10    | 10     | $\mu\text{A}$        |
|  |                 | $T_A = 125\text{ °C}$  | 500   | 500   | 500    |                      |
| Rating for fusing                                    | $I^2t$          | $1\text{ ms} < t_p < 10\text{ ms}$ ,<br>$T_j = 25\text{ °C}$ | 166   | 166   | 166    | $\text{A}^2\text{s}$ |
| Thermal resistance                                   | $R_{\theta JA}$ |  | 5     | 5     | 5      | °C/W                 |

Fig.1 Current Derating Curve

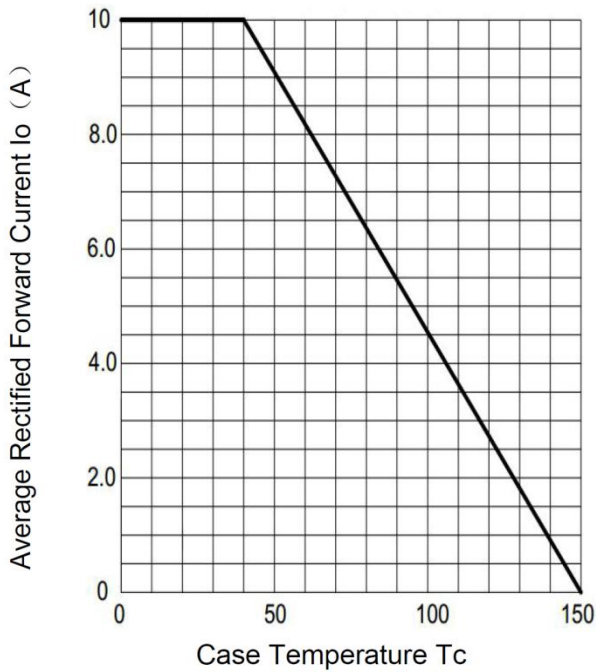


Fig.2 Typical Reverse Characteristics

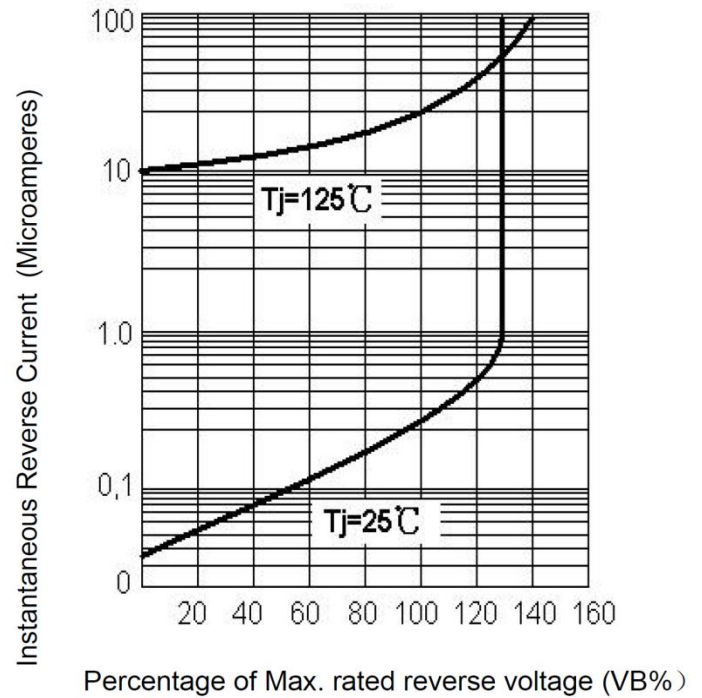


Fig.3 Max. Surge Current

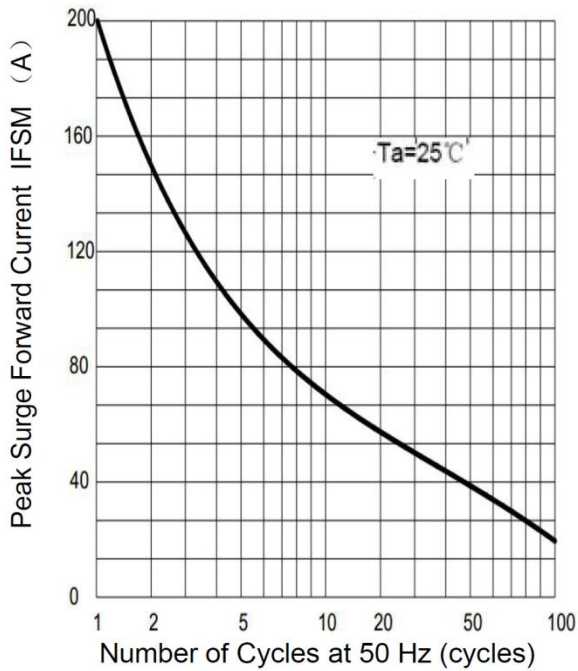
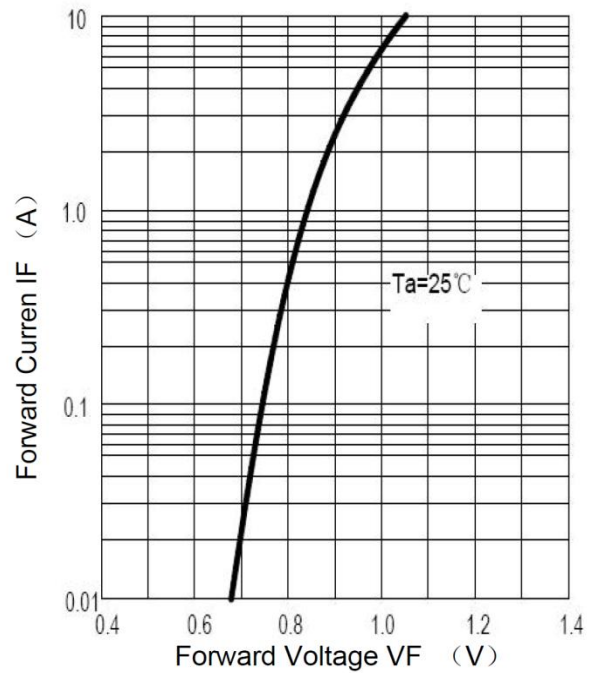


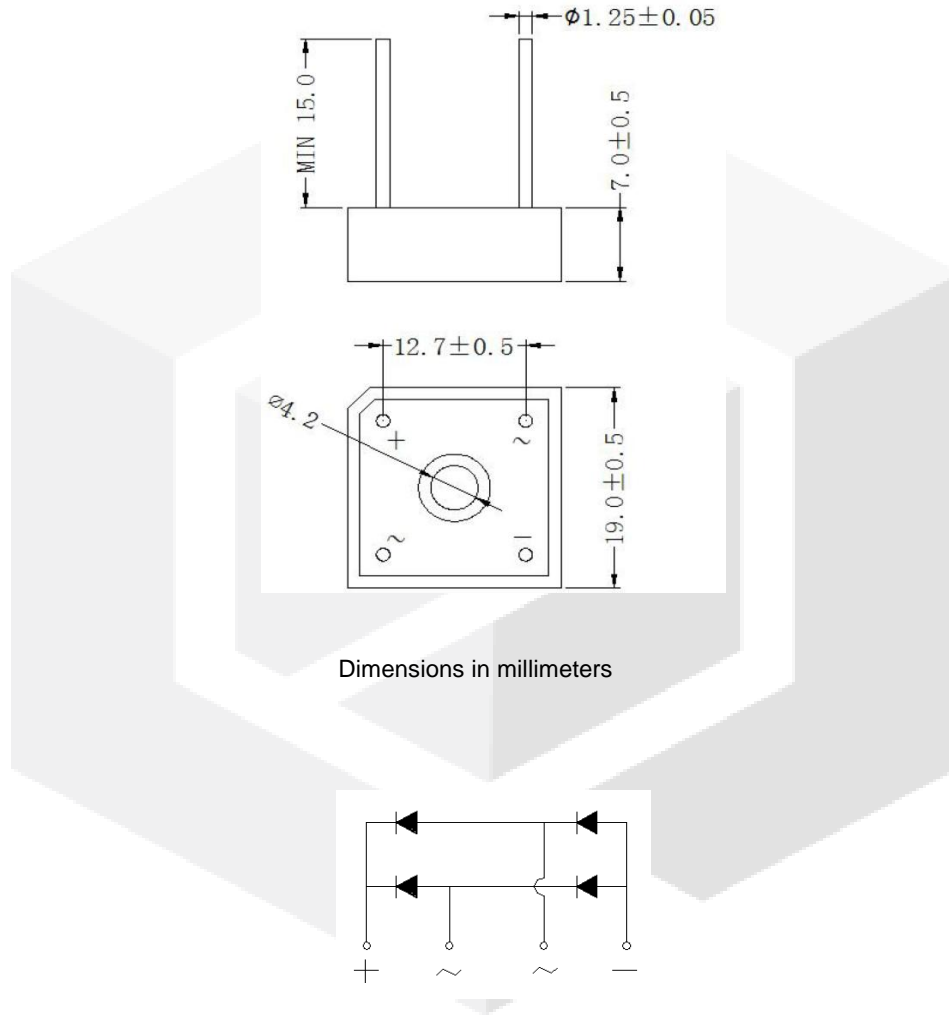
Fig.4 Rated Forward Features



**Package dimensions and terminal configuration**

Product is marked with part number and terminal configuration.

**BR-10**



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