

Single Phase Glass Passivated Silicon Bridge Rectifier

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

$I_O = 3\text{ A}$

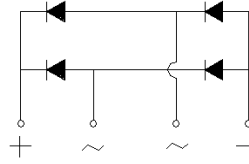
Features

- Low forward voltage
- High surge overload rating
- Ideal for printed circuit boards
- High temperature soldering: 260°C/ 10 s
- Types from 50 V up to 400 V V_{RRM}
- Not ESD Sensitive

Applications

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

BR-3 Package



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

| Parameter | Symbol | Conditions | BR305 | BR31 | BR32 | BR34 | 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 | | -40 to 125 | -40 to 125 | -40 to 125 | -40 to 125 | °C |
| Storage temperature | T_{stg} | | -40 to 150 | -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 | BR305 | BR31 | BR32 | BR34 | Unit |
|--|-----------------|--|------------------------------|------|------|------|----------------------|
| Maximum forward rectified current | I_O | $T_A = 40\text{ °C}$ | 3 | 3 | 3 | 3 | A |
| Peak forward surge current | I_{FSM} | $t_p = 8.3\text{ ms}$ | 60 | 60 | 60 | 60 | A |
| Maximum forward voltage drop | V_F | $I_F = 1.5\text{ A}$ | 1.05 | 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 | 10 | μA |
| | | $T_A = 125\text{ °C}$ | 500 | 500 | 500 | 500 | |
| Rating for fusing | I^2t | $1\text{ ms} < t_p < 10\text{ ms}$, $T_j = 25\text{ °C}$ | 15 | 15 | 15 | 15 | A^2s |
| Thermal resistance | $R_{\theta JA}$ | | 18 | 18 | 18 | 18 | °C/W |
| Mounting Torque | M | | 2.0 (1.0 N.m is recommended) | | | | N.m |

Fig.1: Current Derating Curve

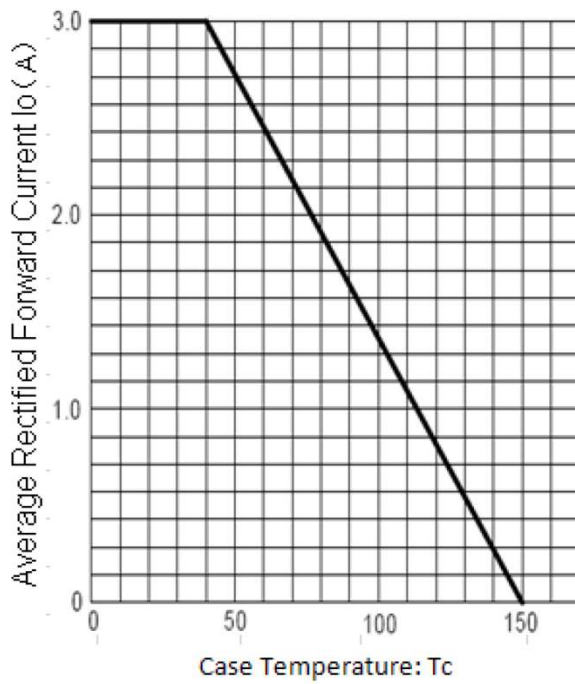


Fig.2: Typical Reverse Characteristics

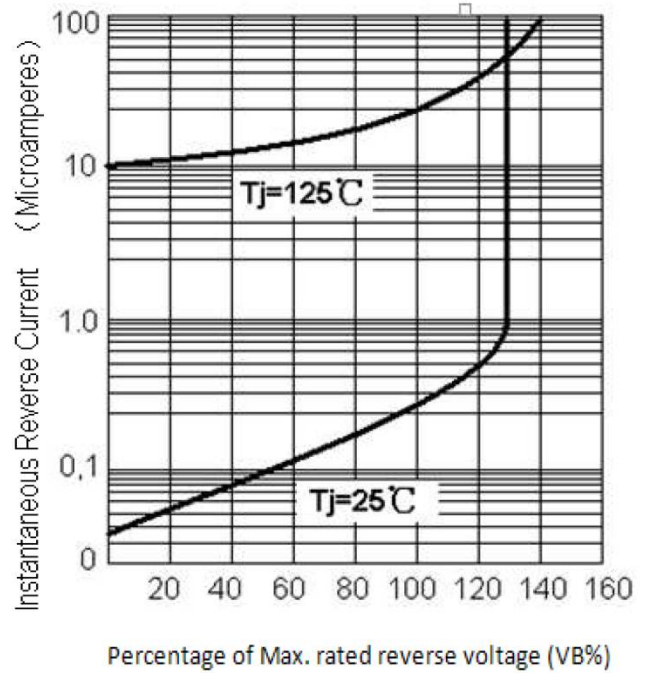


Fig.3: Max. Surge Current

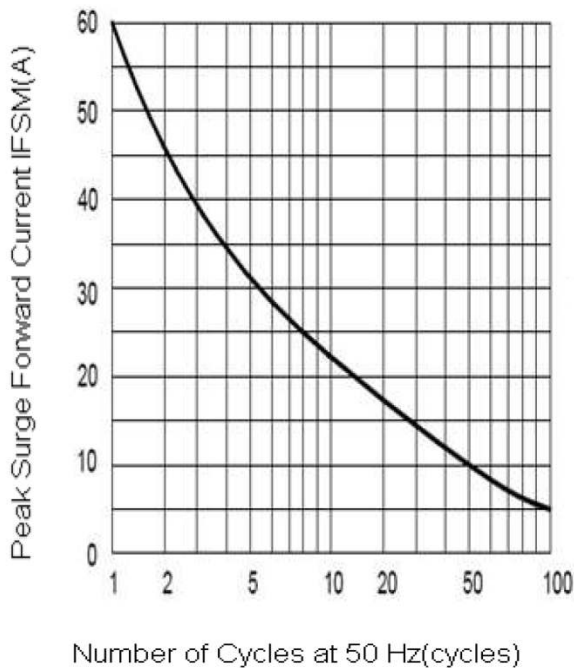
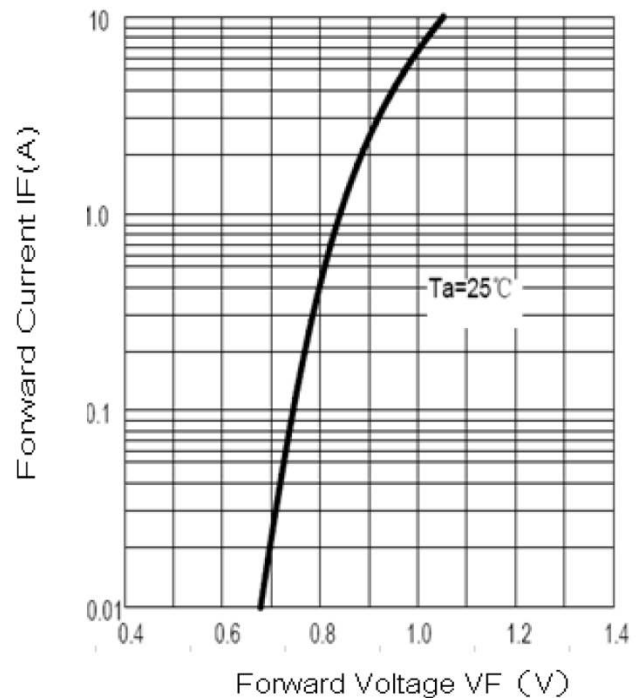


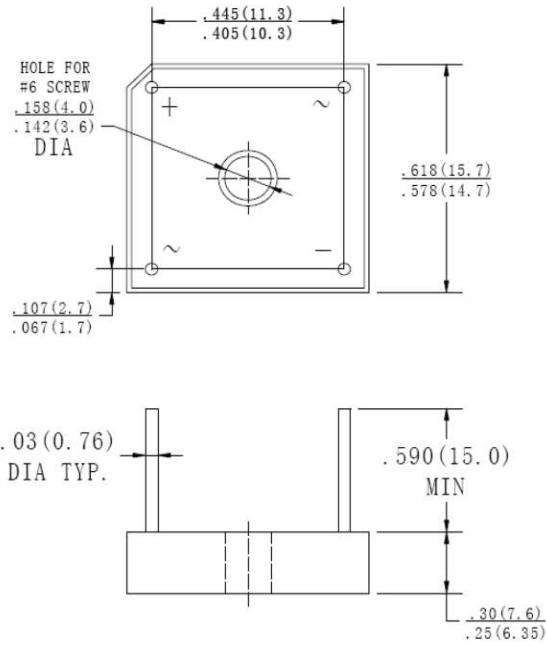
Fig.4: Rated Forward Features



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

BR-3



Dimensions in inches and (millimeters)

