

- Surge overload rating -150 amperes peak.
- Ideal for printed circuit board.
- Reliable low cost construction utilizing moulded plastic technique.
- Mounting position : Any.

[illegible]

Dimensions : Inches (Millimetres)

# Passivated Bridge Rectifiers



## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

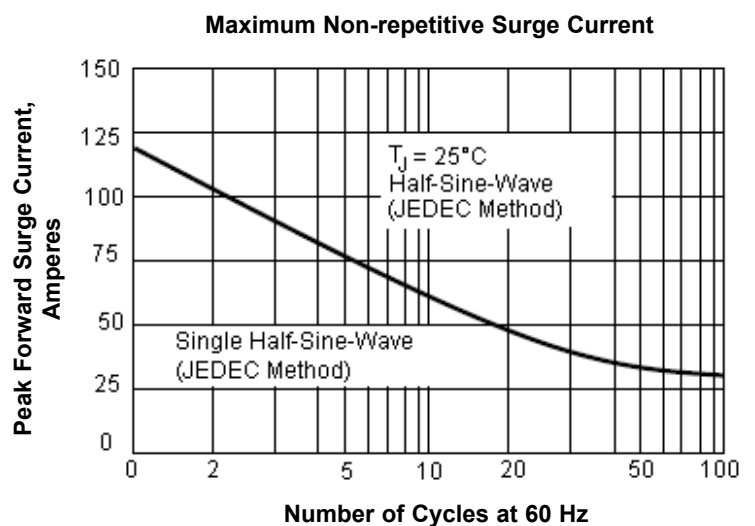
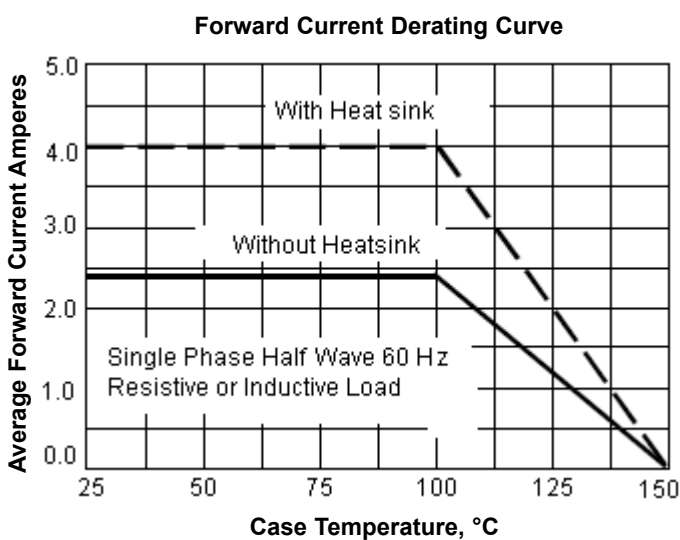
For capacitive load, derate current by 20%.

| Characteristics                                                                                                     | Symbol          | VSIB405     | Units                     |
|---------------------------------------------------------------------------------------------------------------------|-----------------|-------------|---------------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                              | $V_{RRM}$       | 50          | V                         |
| Maximum RMS Voltage                                                                                                 | $V_{RMS}$       | 35          |                           |
| Maximum DC Blocking Voltage                                                                                         | $V_{DC}$        | 50          |                           |
| Maximum Average Forward (with heatsink Note 2)<br>Rectified Current at $T_C = 100^\circ\text{C}$ (without heatsink) | $I_{(AV)}$      | 4<br>2.4    | A                         |
| Peak Forward Surge Current<br>8.3 ms Single Half Sine-wave<br>Super Imposed on Rated Load (JEDEC Method)            | $I_{FSM}$       | 120         |                           |
| Maximum Forward Voltage at 4 A dc                                                                                   | $V_F$           | 1.1         | V                         |
| Maximum DC Reverse Current at $T_J = 25^\circ\text{C}$<br>at Rated DC Blocking Voltage at $T_J = 125^\circ\text{C}$ | $I_R$           | 10<br>500   | $\mu\text{A}$             |
| $I^2t$ Rating for Fusing ( $t < 8.3$ ms)                                                                            | $I^2t$          | 93          | $\text{A}^2\text{s}$      |
| Typical Junction Capacitance Per Element (Note 1)                                                                   | $C_J$           | 45          | pF                        |
| Typical Thermal Resistance                                                                                          | $R_{\theta JC}$ | 2.2         | $^\circ\text{C}/\text{W}$ |
| Operating Temperature Range                                                                                         | $T_J$           | -55 to +150 | $^\circ\text{C}$          |
| Storage Temperature Range                                                                                           | $T_{STG}$       |             |                           |

**Notes :** 1. Measured at 1 MHz and applied reverse voltage of 4 V dc.

2. Device mounted on 50 × 50 × 1.6 mm Cu plate heatsink.

## Rating and Characteristic Curves

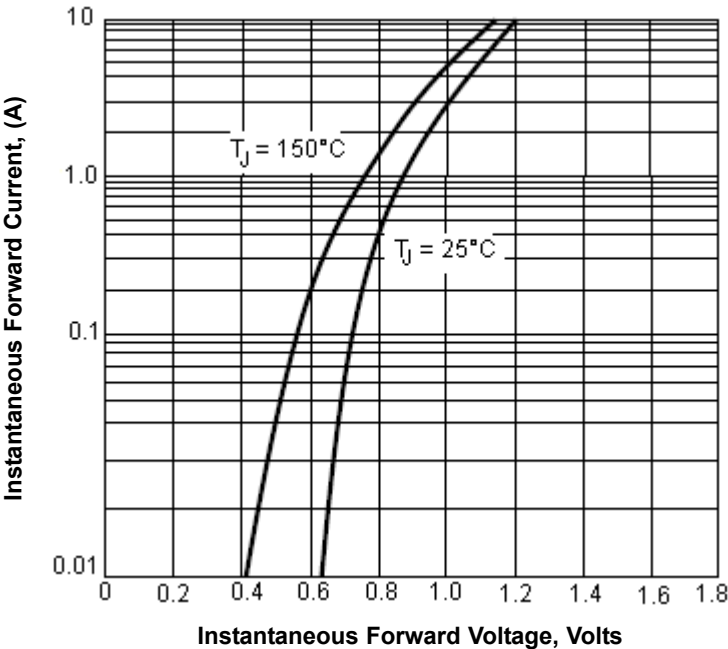


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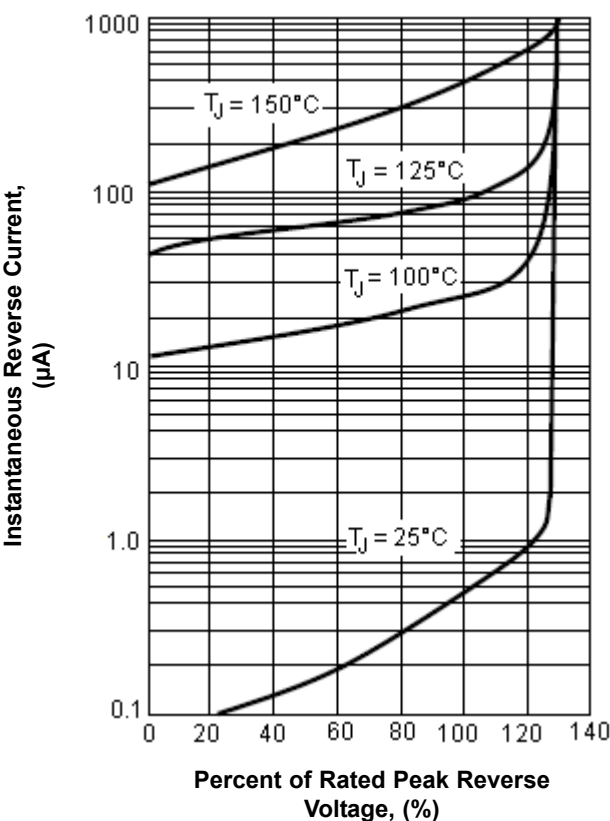


## Rating and Characteristic Curves

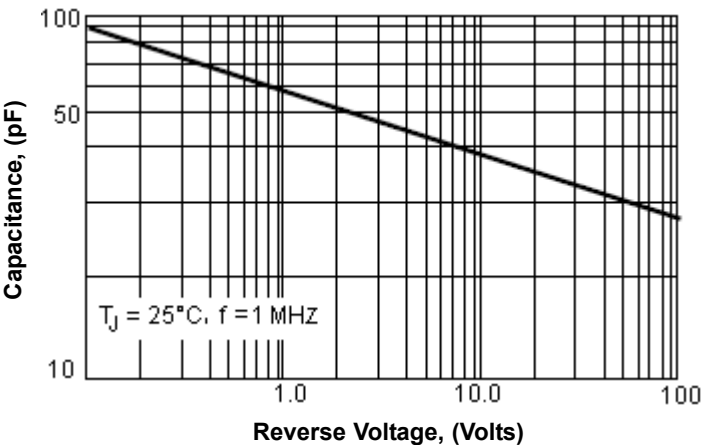
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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