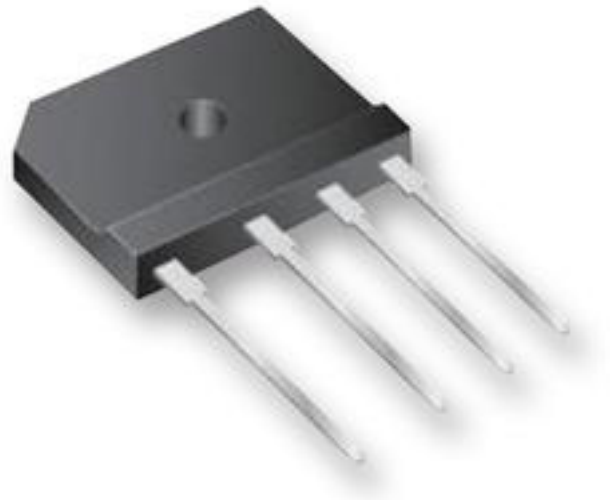
Passivated Bridge Rectifiers

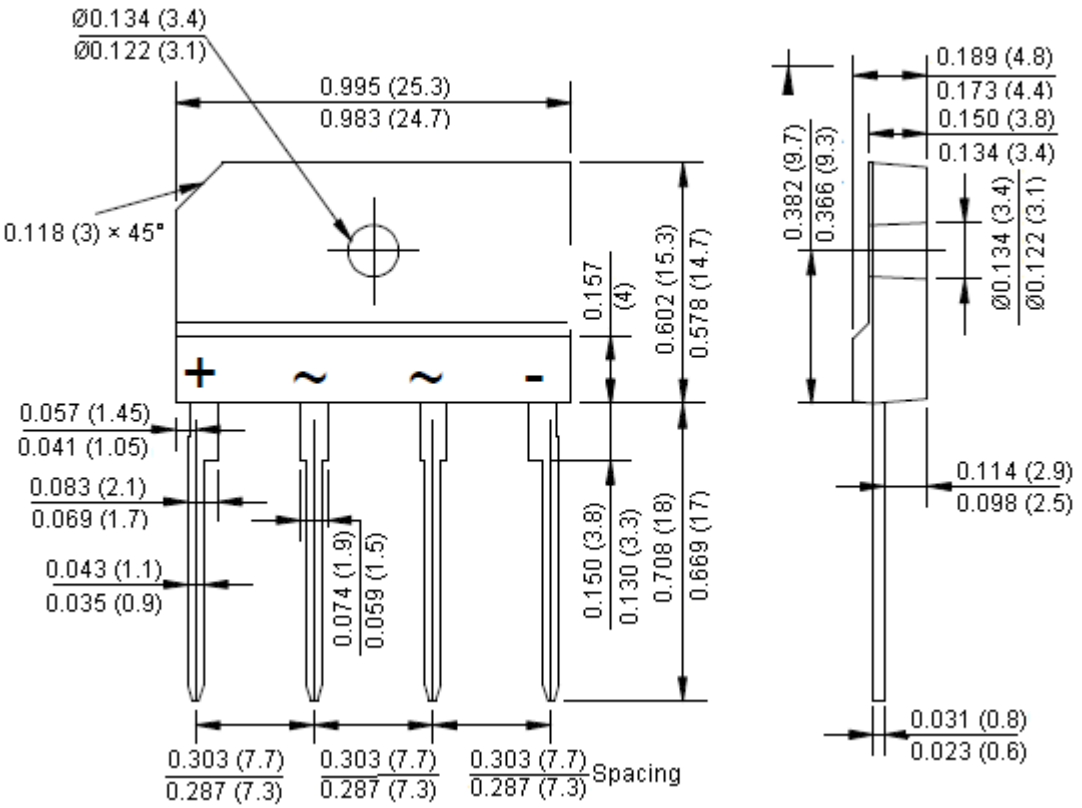


Features:

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

Reverse Voltage - 50 to 1,000 Volts
Forward Current - 4 Amperes

VSIB



Dimensions : Inches (Millimetres)

Maximum Ratings and Electrical Characteristics

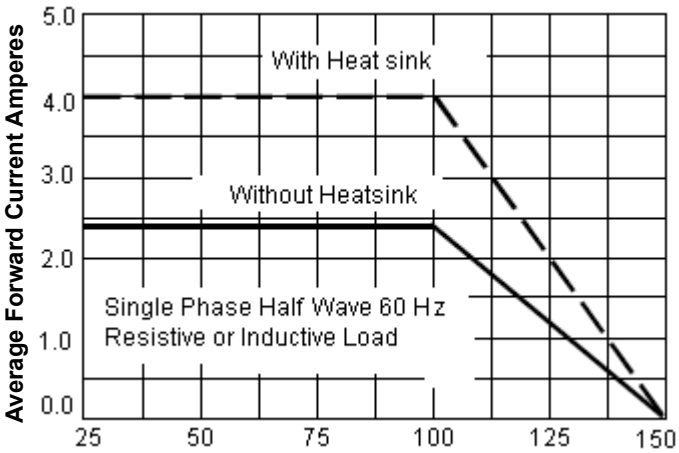
Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

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) Rectified Current at T_C = 100°C (without heatsink)	$I_{(AV)}$	4 2.4	A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave 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°C at Rated DC Blocking Voltage at T_J = 125°C	I_R	10 500	µA
I^2t Rating for Fusing (t < 8.3 ms)	I^2t	93	A^2s
Typical Junction Capacitance Per Element (Note 1)	C_J	45	pF
Typical Thermal Resistance	$R_{\theta JC}$	2.2	°C/W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}		

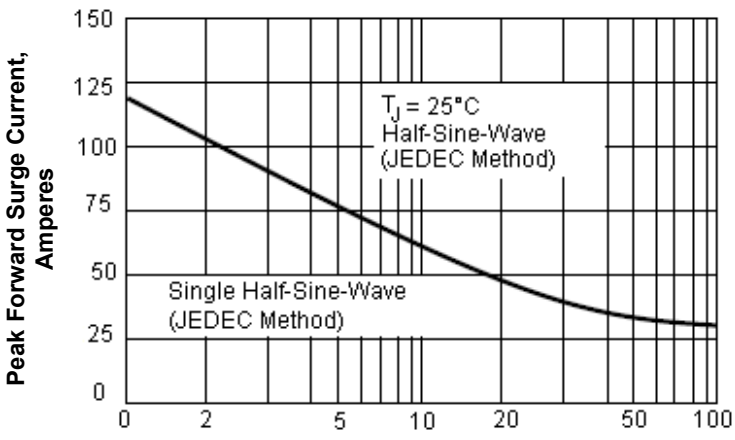
Notes : 1. Measured at 1 MHz and applied reverse voltage of 4 V dc.
2. Device mounted on 50 × 50 × 1.6 mm Cu plate heatsink.

Rating and Characteristic Curves

Forward Current Derating Curve

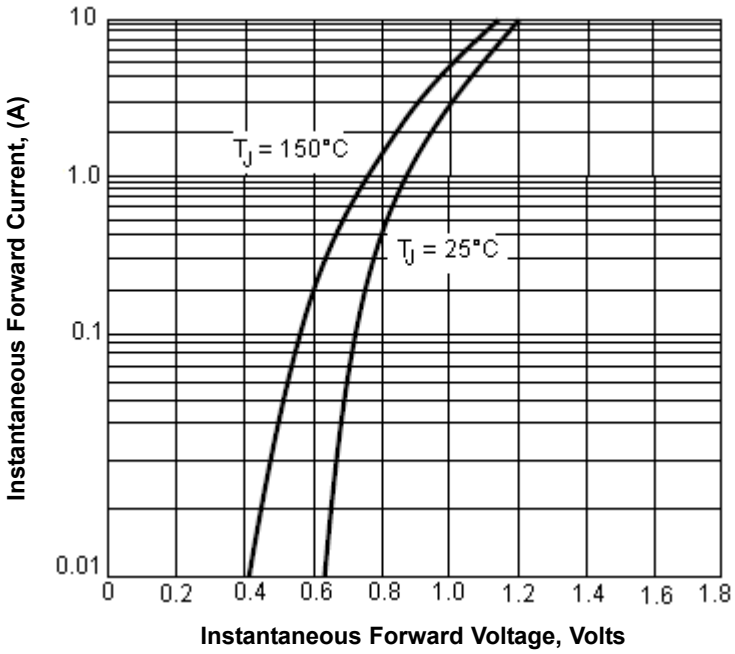


Maximum Non-repetitive Surge Current

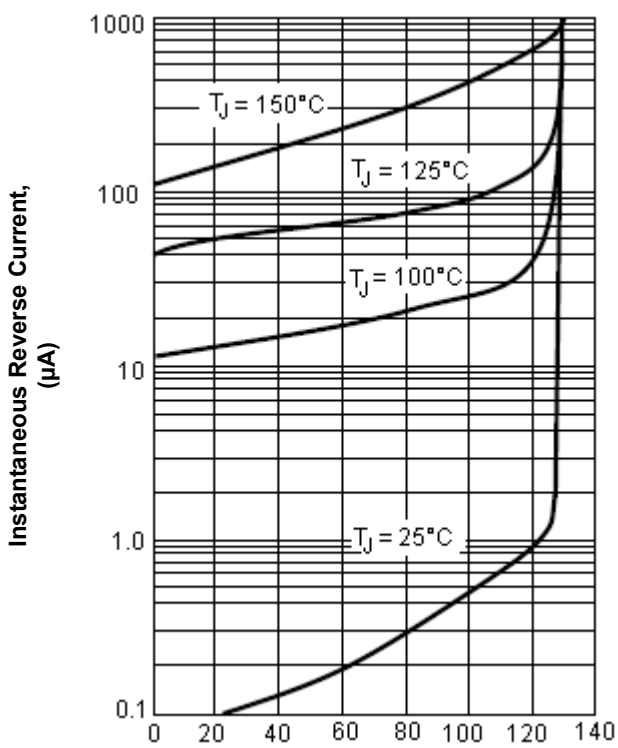


Rating and Characteristic Curves

Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance