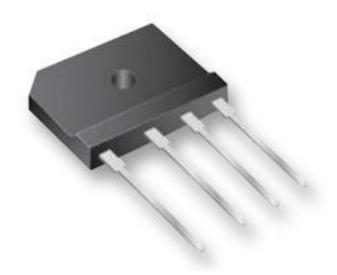
# **Passivated Bridge Rectifiers**



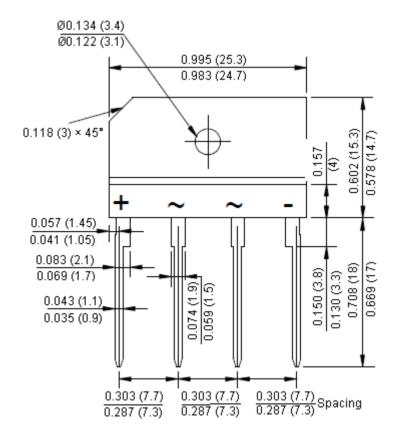


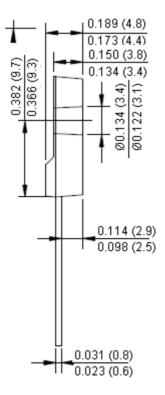
#### Features:

- 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)





## **Passivated Bridge Rectifiers**



### **Maximum Ratings and Electrical Characteristics**

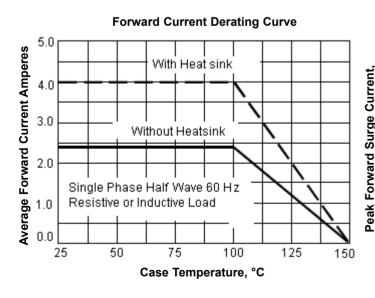
Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

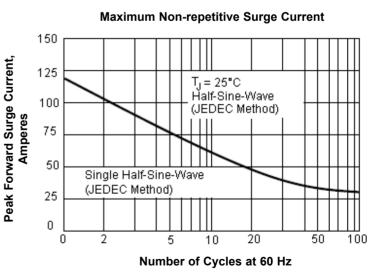
Characteristics	Symbol	VSIB410	Units
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	100	V
Maximum RMS Voltage	V <sub>RMS</sub>	70	
Maximum DC Blocking Voltage	V <sub>DC</sub>	100	
Maximum Average Forward (with heatsink Note 2)  Rectified Current at T <sub>C</sub> = 100°C (without heatsink)	I <sub>(AV)</sub>	4 2.4	A
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	120	
Maximum Forward Voltage at 4 A dc	V <sub>F</sub>	1.1	V
Maximum DC Reverse Current at $T_J = 25^{\circ}$ C at Rated DC Blocking Voltage at $T_J = 125^{\circ}$ C	I <sub>R</sub>	10 500	μΑ
I <sup>2</sup> t Rating for Fusing (t < 8.3 ms)	I <sup>2</sup> t	93	A <sup>2</sup> s
Typical Junction Capacitance Per Element (Note 1)	CJ	45	pF
Typical Thermal Resistance	$R_{ heta JC}$	2.2	°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>		

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**





www.element14.com www.farnell.com www.newark.com

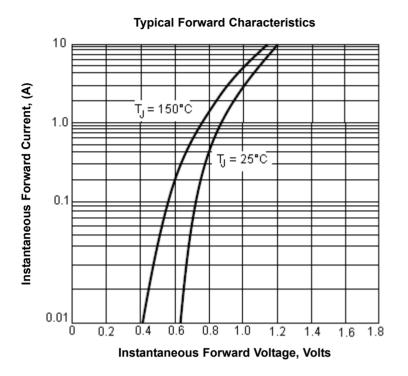


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# **Passivated Bridge Rectifiers**



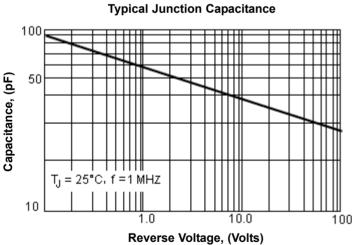
### **Rating and Characteristic Curves**



### **Typical Reverse Characteristics** 1000 Tյ = 150°C T<sub>I</sub> = 125°C 100 nstantaneous Reverse Current, T<sub>I</sub> = 100°C 10 $T_{\rm J} = 25^{\circ}{\rm C}$ 1.0 0.1 20 40 80 100 120

**Percent of Rated Peak Reverse** 

Voltage, (%)



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