## B1 thru B10

## SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIERS





REVERSE VOLTAGE -100 to 1000 Volts FORWARD CURRENT -0.8 Amperes

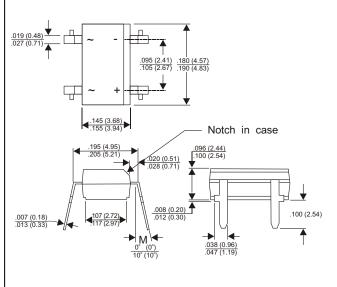
#### **FEATURES**

- Rating to 1000V PRV
- · Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Lead in plated copper

#### **MECHANICAL DATA**

Polarity: Symbol molded on bodyWeight: 0.0044 ounces, 0.125 grams

Mounting position: Any



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		B1	B2	B4	В6	B8	B10	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	٧
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	70	140	280	420	560	700	٧
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	1000	٧
Maximum Average Forward Rectified Current (Note 1) @ T <sub>A</sub> =40 °C	V <sub>(AV)</sub>	0.8						А
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I <sub>FSM</sub>	30						A
Maximum Forward Voltage at 0.4A DC	V <sub>F</sub>	1.0						٧
Maximum DC Reverse Current @ T <sub>J</sub> =25°C at rated DC Blocking Voltage @ T <sub>J</sub> =125°C		5						μА
	I <sub>R</sub>	500						
Typical Junction Capacitance per element (Note2)	CJ	15						pF
Typical Thermal Resistance (Note3)	$R_{ hetaJA}$	75						°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150						°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150						°C

NOTES: 1.Mounted on P.C. Board.

- 2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- 3. Thermal Resistance Junction to Ambient.

# B1 thru B10

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RATING AND CHARACTERISTICS CURVES B1 THRU B10

Fig. 1 - FORWARD CURRENT DERATING CURVE

1.0
0.8
0.8
0.6
0.0
0.1
0.2
SINGLE PHASE HALF WAVE 60Hz
RESISTIVE OR INDUCTIVE LOAD
0.1
20 40 60 100 120 140 160

AMBIENT TEMPERATURE, °C

Fig. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

40

40

40

40

10

Pulse Width 8.3ms
Single Half-Sine-Wave (JEDEC METHOD)
1

2

5

10

NUMBER OF CYCLES AT 60Hz

Fig. 5 - TYPICAL REVERSE CHARACTERISTICS

100

T,=125°C

100

T,=25°C

0.01

0 20 40 60 80 100 120 140

PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)

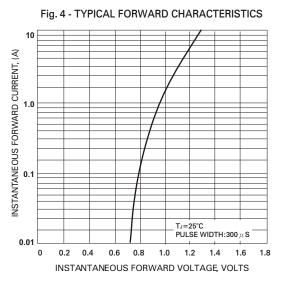


Fig. 3 - TYPICAL JUNCTION CAPACITANCE

