



DATA SHEET

B1S~B10S

MINI SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

VOLTAGE - 100 to 1000 Volts CURRENT - 0.5 Amperes

FEATURES

- Plastic material used carries Underwriters
- Laboratory recognition 94V-O
- Low leakage
- Surge overload rating-- 30 amperes peak
- Ideal for printed circuit board
- Exceeds environmental standards of MIL-S-19500

MECHANICAL DATA

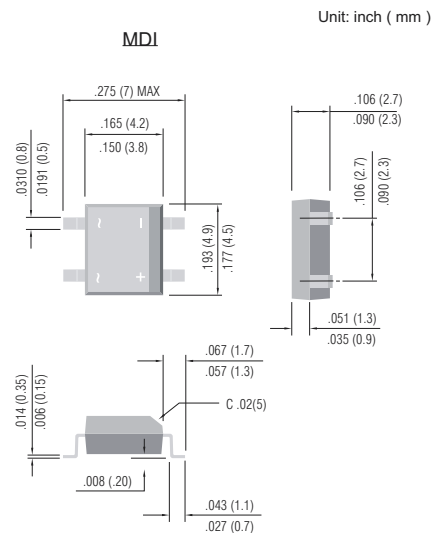
Case: Reliable low cost construction utilizing molded plastic technique results in inexpensive product

Terminals: Lead solderable per MIL-STD-202, Method 208.

Polarity: Polarity symbols molded or marking on body.

Mounting Position: Any.

Weight: 0.008 ounce, 0.22 gram.



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%

	B1S	B2S	B4S	B6S	B8S	B10S	UNIT	
Maximum Recurrent Peak Reverse Voltage	100	200	400	600	800	1000	V	
Maximum RMS Bridge input Voltage	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	100	200	400	600	800	1000	V	
Maximum Average Forward Current $T_A=30^\circ\text{C}$	on glass-epoxy P.C.B (Note 1) on aluminum substrate (Note 3)						0.5 0.8	A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load							30.0	A
I^2t Rating for fusing ($t < 8.35$ ms)							5.0	A^2t
Maximum Forward Voltage Drop per Bridge Element at 0.5A							1.00	V
Maximum Reverse Current at Rated $T_J=25^\circ\text{C}$ DC Blocking Voltage per element $T_J=125^\circ\text{C}$							5.0	μA mA
Typical Junction capacitance per leg (Note 1) CJ							25.0	pF
Typical Thermal resistance per leg (Note 2) $R_{\theta JA}$ Typical Thermal resistance per leg (Note 2) $R_{\theta JA}$							85.0	$^\circ\text{C}/\text{W}$
Operating Temperature Range T_J							-55 to 150	$^\circ\text{C}$
Storage Temperature Range T_A							-55 to 150	$^\circ\text{C}$

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.05 X 0.05" (13 x 13mm) copper pads.
3. On alum: substrate P.C.B with an area of 0.8 x 0.8 x 0.25" (20 x 20 x 6.4mm) mounted on 0.05 x 0.05 " (13 x 13 mm) solder pad.



RATING AND CHARACTERISTIC CURVES

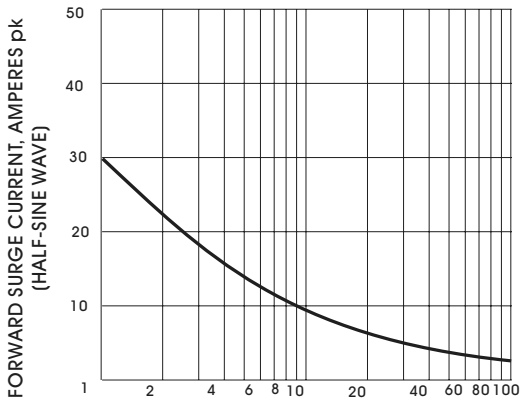


Fig. 1 - MAXIMUM NON-REPETITIVE SURGE CURRENT

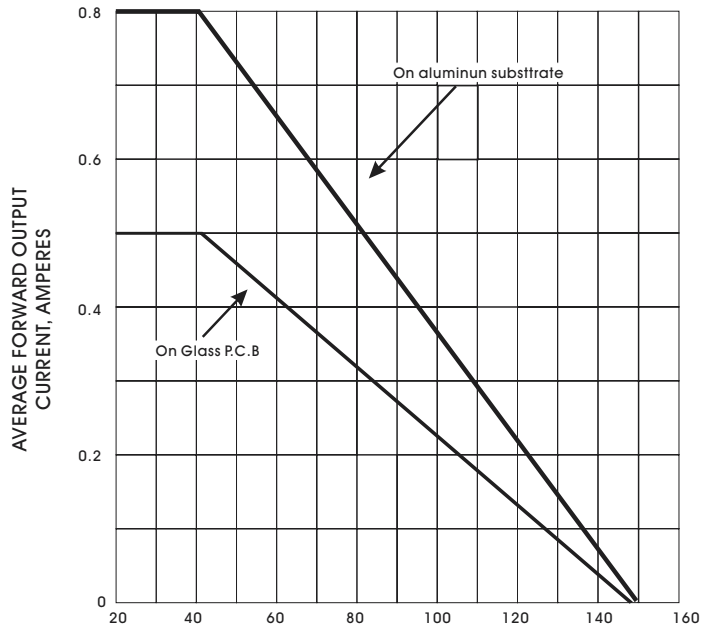


Fig. 2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

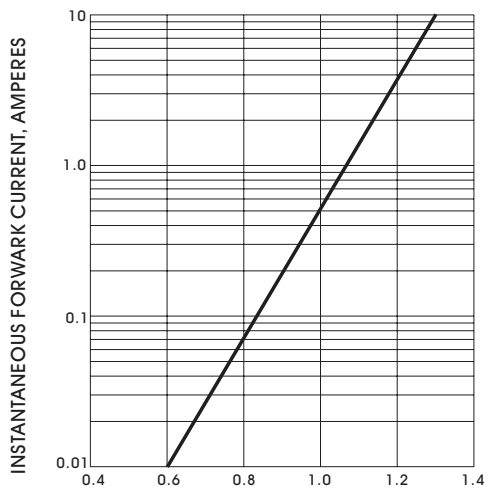


Fig. 3 - TYPICAL FORWARD CHARACTERISTICS

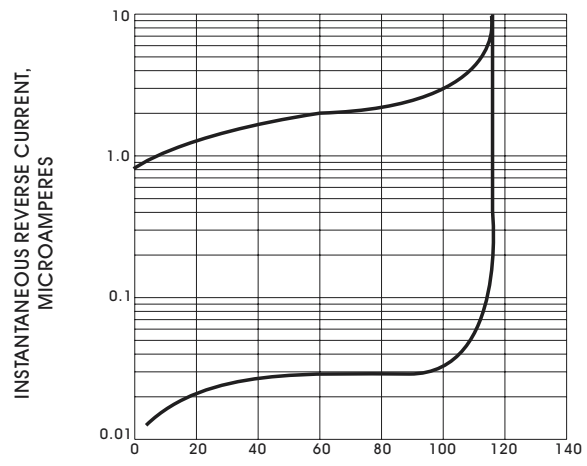


Fig. 4 - TYPICAL REVERSE CHARACTERISTICS