



DATA SHEET

SEMICONDUCTOR

B1S THRU B10S

MINI SURFACE MOUNT GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

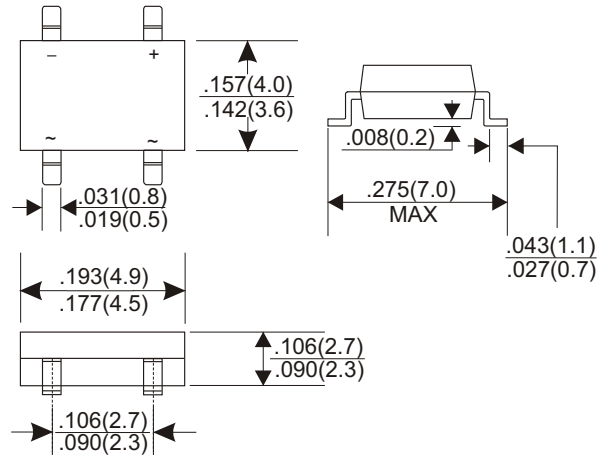


VOLTAGE 100 to 1000Volts CURRENT 0.5 Amperes

FEATURES

- Plastic material used carries Underwriters Laboratory recognition 94V-0
- Low leakage
- Surge overload rating-- 30 amperes peak
- Ideal for printed circuit board
- Exceeds environmental standards of MIL-S-19500
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MDI Unit:inch(mm)



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%

| PARAMETER | SYMBOL | B1S | B2S | B4S | B6S | B8S | B10S | UNITS |
|---|------------------|-------------|-----|-----|-----|-----|------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Bridge Input Voltage | VRMS | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | VDC | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Current TA=40 TA=25 (Note 3) | IAV | 0.5 0.8* | | | | | | A |
| Peak Forward Surge Current:8.3ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | 35 | | | | | | A |
| I2t Rating for fusing (t<8.35ms) | I2t | 3.735 | | | | | | A2t |
| Maximum Forward Voltage Drop per Bridge Element at 0.5A | VF | 1.0 | | | | | | V |
| Maximum DC Reverse Current TJ=25 at Rated DC Blocking Voltage TJ=125 | IR | 5.0 500 | | | | | | uA |
| Typical Junction capacitance (Note 1) | CJ | 25 | | | | | | pF |
| Typical thermal resistance per leg (Note2) | Rθ A J Rθ L J | 85 20 | | | | | | /W |
| Operating Junction and Storage Temperature Range | TJ, TSTG | -55 to +150 | | | | | | |

NOTES:

- Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.5 X 0.5"(13 X 13mm) copper pads
- * R-load on alumina substrate Ta=25oC

DEVICE CHARACTERISTICS

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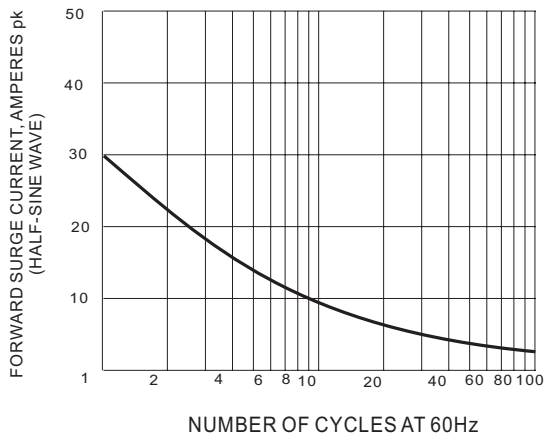


Fig.1 MAXIMUM NON-REPETITIVE SURGE CURRENT

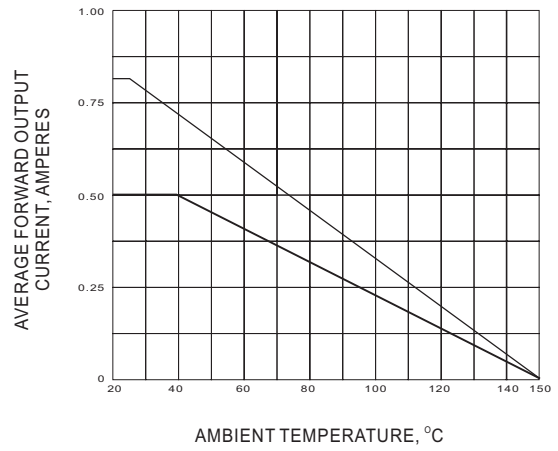


Fig.2 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

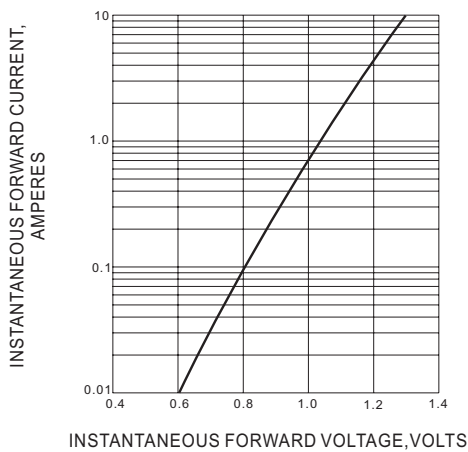


Fig.3 TYPICAL FORWARD CHARACTERISTICS

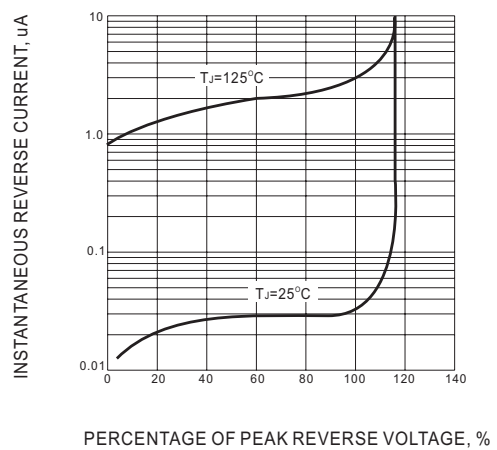


Fig.4 TYPICAL REVERSE CHARACTERISTICS