



DATA SHEET

DI100S~DI1010S

SURFACE MOUNT GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE 50 to 1000 Volts **CURRENT** 1.0 Amperes

SDIP Unit : inch (mm)



Recognized File #E111753

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-19500/228
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

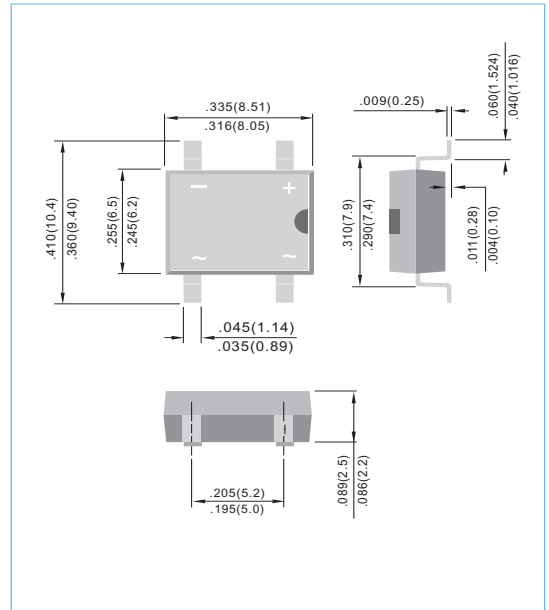
Case: Reliable low cost construction utilizing molded plastic technique results in inexpensive product

Terminals: Lead solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols molded or marking on body

Mounting Position: Any

Weight: 0.02 ounce, 300mg



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 | DI100S | DI101S | DI102S | DI104S | DI106S | DI108S | DI1010S | UNITS |
|--|-----------------------------------|-------------|--------|--------|--------|--------|--------|---------|--------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Bridge Input Voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Current TA=40°C | I _{AV} | 1.0 | | | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 30 | | | | | | | A |
| Ft Rating for fusing (t<8.35ms) | Pt | 3.735 | | | | | | | A²t |
| Maximum Forward Voltage Drop per Bridge Element at 1.0A | V _F | 1.1 | | | | | | | V |
| Maximum DC Reverse Current TA=25 °C at Rated DC Blocking Voltage TA=125 °C | I _R | 5.0 500 | | | | | | | µA |
| Typical Junction capacitance (Note 1) | C _J | 25 | | | | | | | pF |
| Typical thermal resistance per leg ((Note 2) | RθJA RθJL | 40 15 | | | | | | | °C / W |
| Operating Junction and Storage Temperature Range | T _J , T _{STG} | -55 to +150 | | | | | | | °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 0.5 X 0.5"(13 X 13mm) copper pads



RATING AND CHARACTERISTIC CURVES

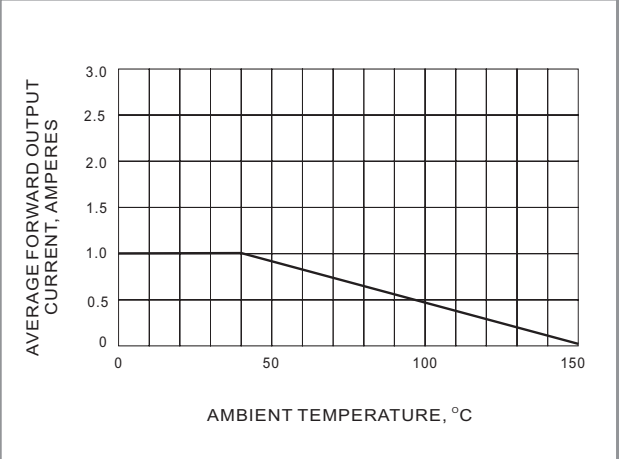


FIG. 1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

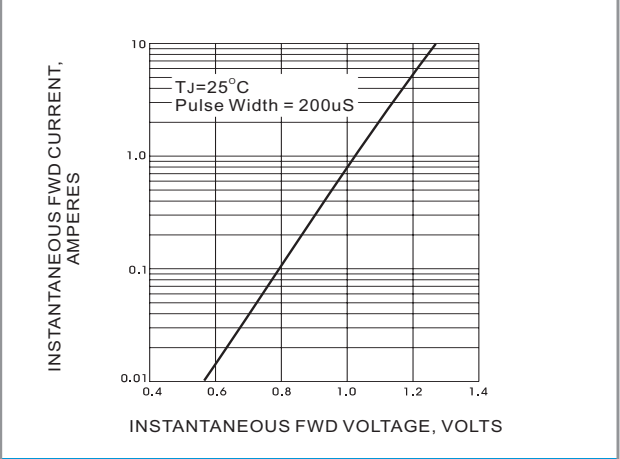


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

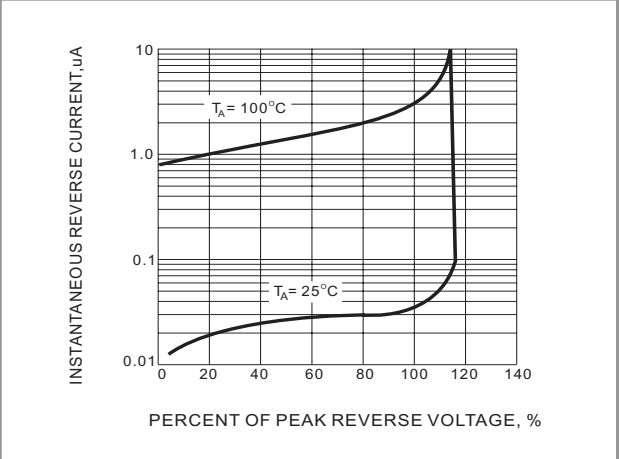


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

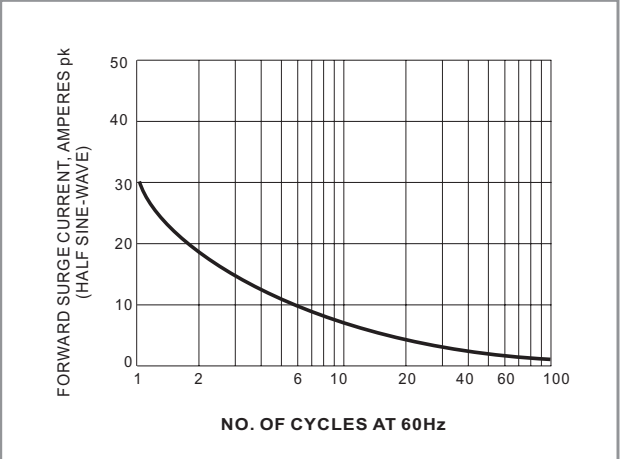
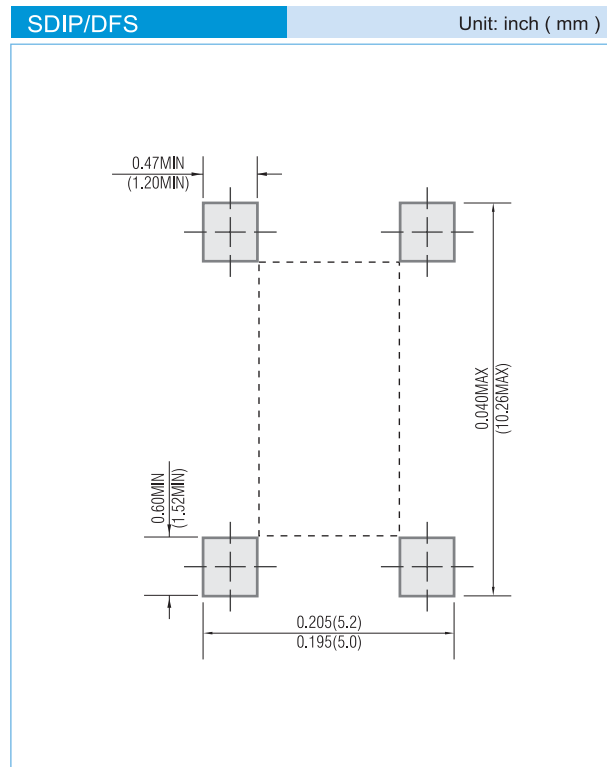


FIG. 4 MAX NON-REPETITIVE SURGE CURRENT



MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 1.5K per 13" plastic Reel

LEGAL STATEMENT

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