



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-O
- Low leakage
- Surge overload rating-- 30 amperes peak
- Ideal for printed circuit board
- Exceeds environmental standards of MIL-S-19500/228
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

MECHANICAL DATA

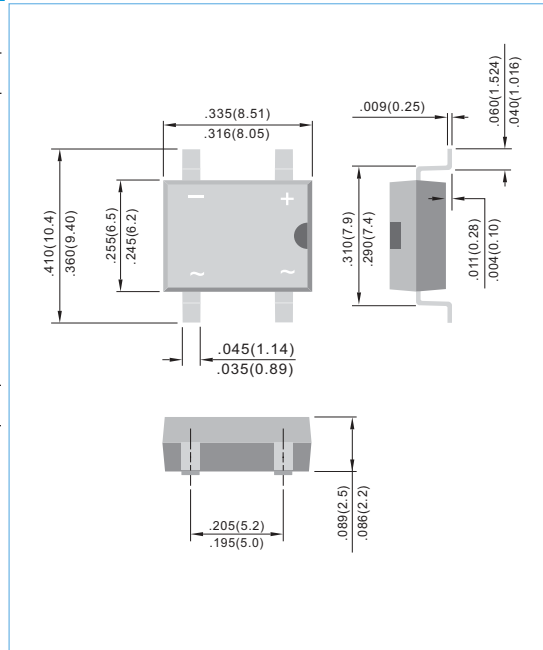
Case: Reliable low cost construction utilizing molded plastic technique results in inexpensive product

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

Polarity: Polarity symbols molded or marking on body

Mounting Position: Any

Weight: 0.02 ounce, 0.38 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	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
I ² t Rating for fusing (t<8.35ms)	I ² t	3.735							A ² t
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							uA
Typical Junction capacitance (Note 1)	C _J	25							pF
Typical thermal resistance per leg ((Note 2)	R _{θJA} R _{θJL}	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

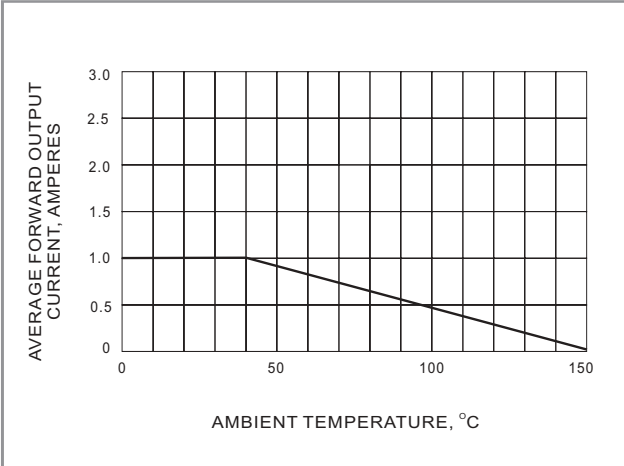


FIG. 1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

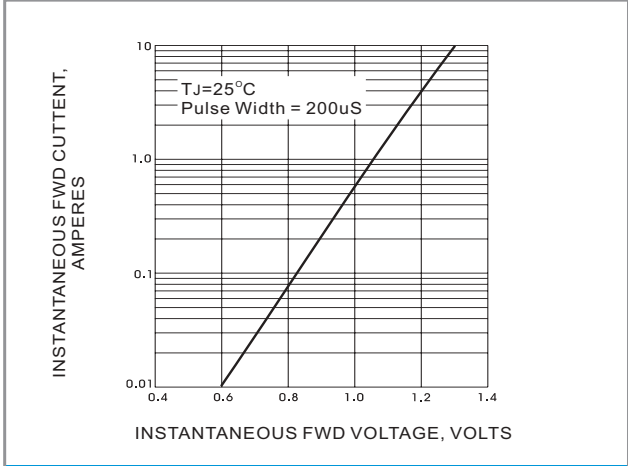


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

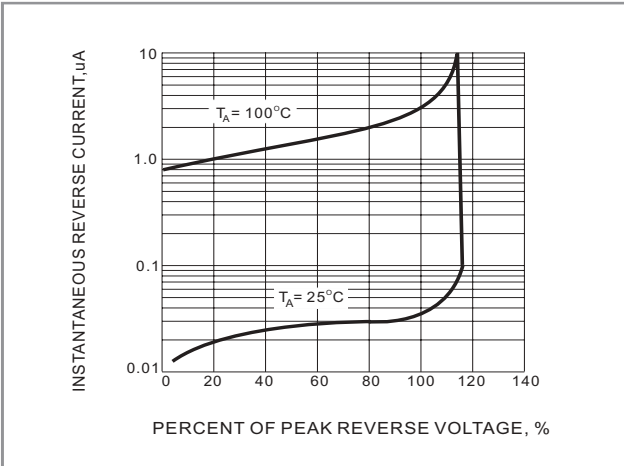


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

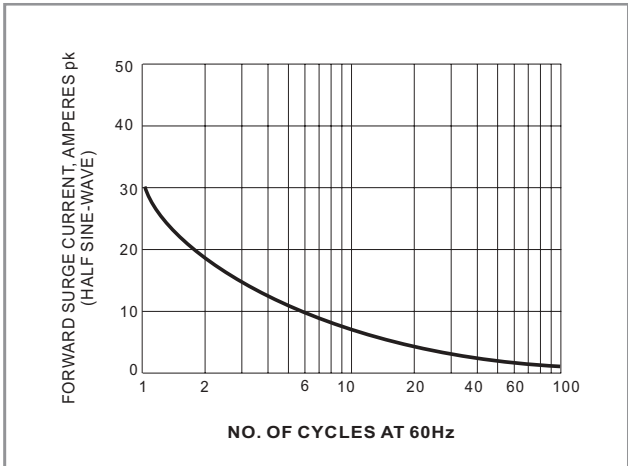


FIG. 4 MAX NON-REPETITIVE SURGE CURRENT