

DI100S/150S THRU DI1010S/1510S

SURFACE MOUNT GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE - 50 to 1000 Volts CURRENT - 1.0~1.5 Ampere

 Recognized File #E111753

FEATURES

- Plastic material used carries Underwriters Laboratory recognition 94V-0
- Low leakage
- Surge overload rating— 30~50 amperes peak
- Ideal for printed circuit board
- Exceeds environmental standards of MIL-S-19500/228

MECHANICAL DATA

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

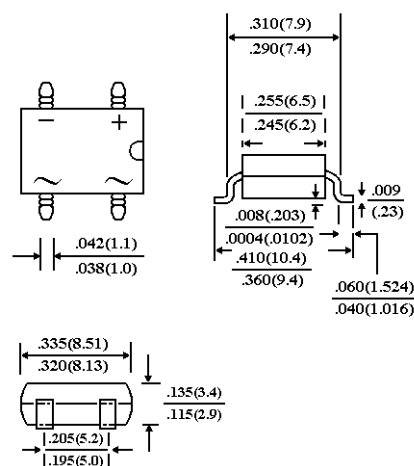
Terminals: Lead solderable per MIL-STD-202, Method 208

Polarity: Polarity symbols molded or marking on body

Mounting Position: Any

Weight: 0.02 ounce, 0.38 gram

SDIP



Dimensions in inches and (millimeters)

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%.

	DI100S DI150S	DI101S DI151S	DI102S DI152S	DI104S DI154S	DI106S DI156S	DI108S DI158S	DI1010S DI1510S	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge input Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Current $T_A=40\text{ }^\circ\text{C}$	DI100S	1.0						A
	DI150S	1.5						
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	DI100S	30.0						A
	DI150S	50.0						
I^2t Rating for fusing ($t < 8.35\text{ ms}$)							10.0	A^2t
Maximum Forward Voltage Drop per Bridge Element at 1.0A							1.1	V
Maximum Reverse Current at Rated $T_A=25\text{ }^\circ\text{C}$							5.0	$\mu\text{g A}$
DC Blocking Voltage per element $T_A=125\text{ }^\circ\text{C}$							0.5	mA
Typical Junction capacitance per leg (Note 1) CJ							25.0	μF
Typical Thermal resistance per leg (Note 2) R θKJA							40.0	$^\circ\text{C/W}$
Typical Thermal resistance per leg (Note 2) R θKJL							15.0	
Operating Temperature Range T_J							-55 to +125	$^\circ\text{C}$
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 0.5 \times 0.5" (13 \times 13mm) copper pads

RATING AND CHARACTERISTIC CURVES

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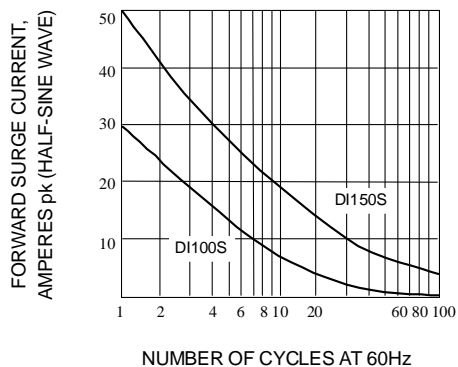


Fig. 1-MAXIMUM NON-REPETITIVE SURGE CURRENT

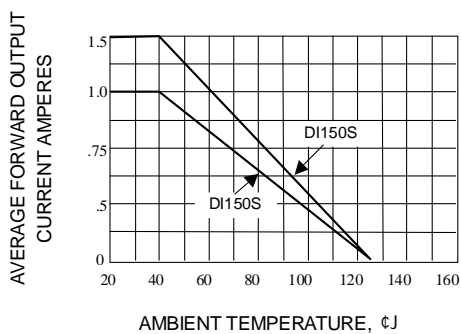


Fig. 2-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

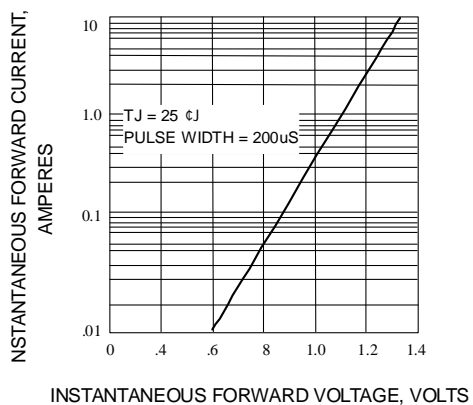


Fig. 3-TYPICAL FORWARD CHARACTERISTICS

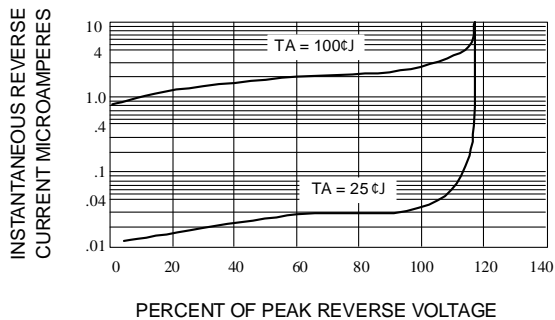


Fig. 4-TYPICAL REVERSE CHARACTERISTICS