



# DATA SHEET

## DI150S~DI1512S

### SURFACE MOUNT GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

**VOLTAGE** 50 to 1000 Volts

**CURRENT** 1.5 Amperes

**SDIP**

Unit : inch (mm)



Recognized File #E111753

#### FEATURES

- Plastic material used carries Underwriters Laboratory recognition 94V-O
- Low leakage
- Surge overload rating-- 50 amperes peak
- Ideal for printed circuit board
- Exceeds environmental standards of MIL-S-19500/228
- Pb free product are available : 99% Sn can meet Rohs environment substance directive request

#### MECHANICAL DATA

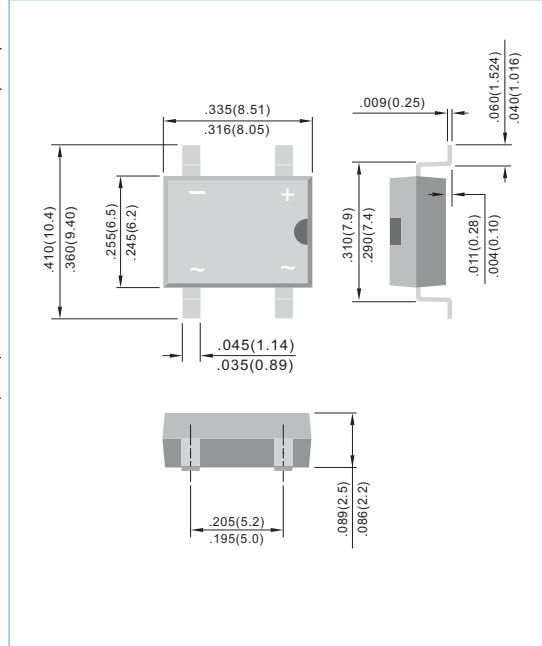
Case: Reliable low cost construction utilizing molded plastic technique results in inexpensive product

Terminals: Lead solderable per MIL-STD-202G, 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%

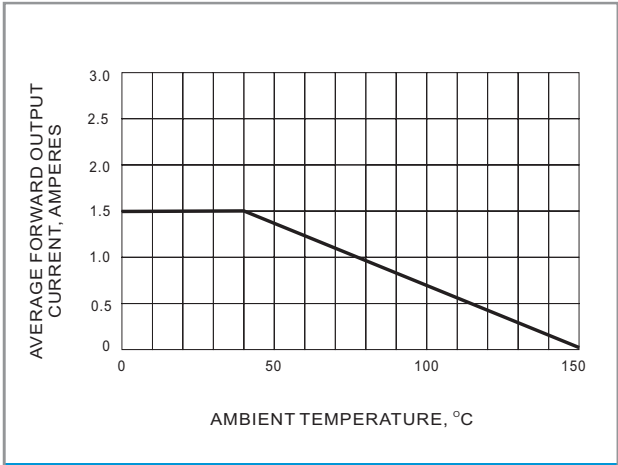
PARAMETER	SYMBOL	DI150S	DI151S	DI152S	DI154S	DI156S	DI158S	DI1510S	DI1512S	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	1200	V
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	840	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	1200	V
Maximum Average Forward Current TA=40°C	I <sub>AV</sub>	1.5								A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	50								A
I <sup>2</sup> t Rating for fusing ( t < 8.35ms)	I <sup>2</sup> t	10								A <sup>2</sup> t
Maximum Forward Voltage Drop per Bridge Element at 1.0A	V <sub>F</sub>	1.1								V
Maximum DC Reverse Current T <sub>J</sub> =25 °C at Rated DC Blocking Voltage T <sub>J</sub> =125 °C	I <sub>R</sub>	5.0 500								μA
Typical Junction capacitance (Note 1)	C <sub>J</sub>	25								pF
Typical thermal resistance per leg ((Note 2)	R <sub>θJA</sub> R <sub>θJL</sub>	40 15								°C / W
Operating and Storage Temperature Range	T <sub>J</sub>	-50 to + 125								°C
Storage Temperature Range	T <sub>A</sub>	-50 to + 150								°C

#### NOTES:

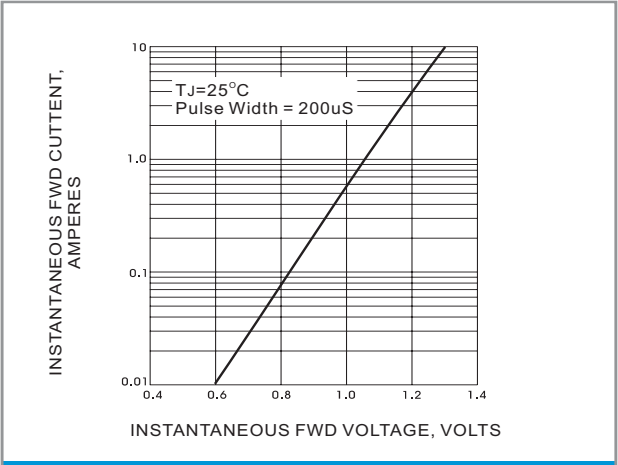
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.5 X 0.5"(13 X 13mm) copper pads



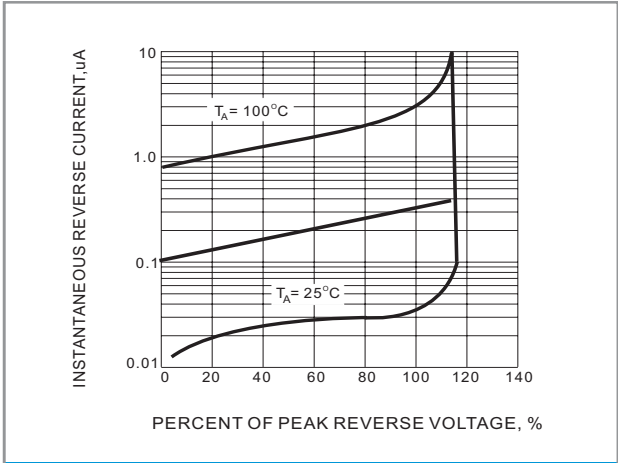
**RATING AND CHARACTERISTIC CURVES**



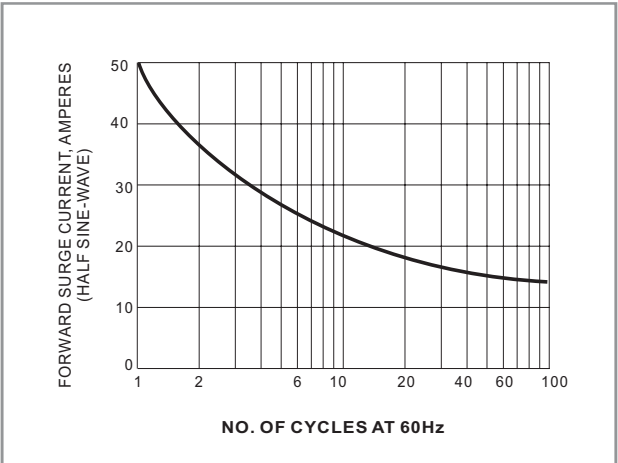
**FIG. 1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG. 2 TYPICAL FORWARD CHARACTERISTICS**



**FIG. 3 TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4 MAX NON-REPETITIVE SURGE CURRENT**