PANJIT SEMI CONDUCTOR

DATA SHEET

DI150S~DI1512S

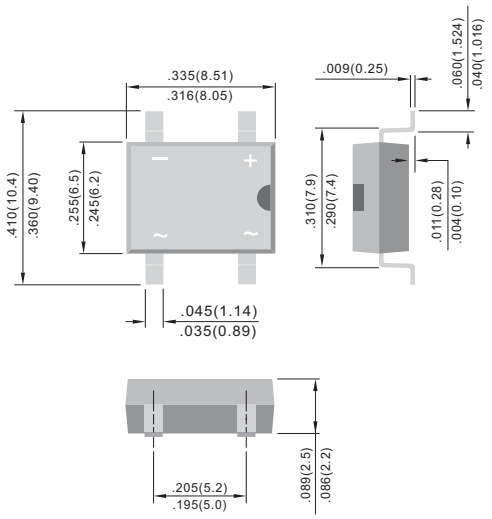
SURFACE MOUNT GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE 50 to 1000 Volts **CURRENT** 1.5 Amperes SDIP Unit : inch (mm)

Recongnized 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_{RRM}	50	100	200	400	600	800	1000	1200	V
Maximum RMS Bridge Input Voltage	V_{RMS}	35	70	140	280	420	560	700	840	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	1200	V
Maximum Average Forward Current TA=40°C	I_{AV}	1.5								A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	50								A
I^2t Rating for fusing (t<8.35ms)	I^2t	10								A^2t
Maximum Forward Voltage Drop per Bridge Element at 1.0A	V_F	1.1								V
Maximum DC Reverse Current TJ=25 °C at Rated DC Blocking VoltageTJ=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 and Storage Temperature Range	T_J	-50 to + 125								°C
Storage Temperature Range	TA	-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

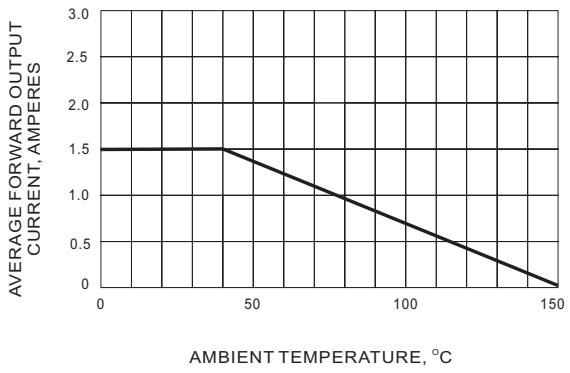


FIG.1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

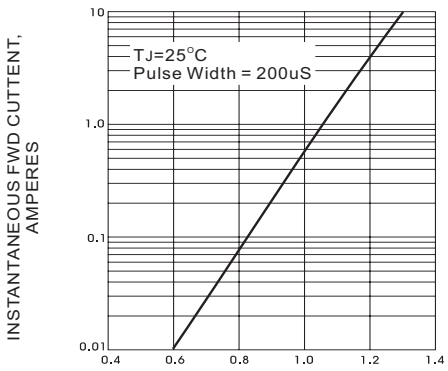


FIG.2 TYPICAL FORWARD CHARACTERISTICS

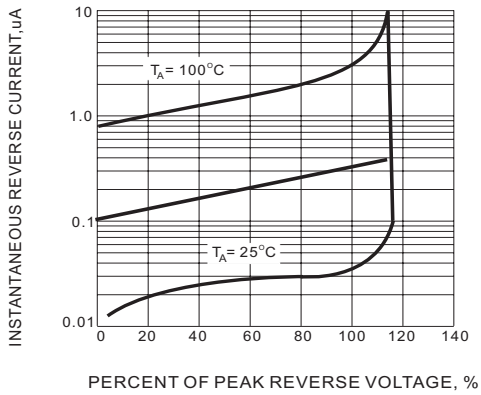


FIG.3 TYPICAL REVERSE CHARACTERISTICS

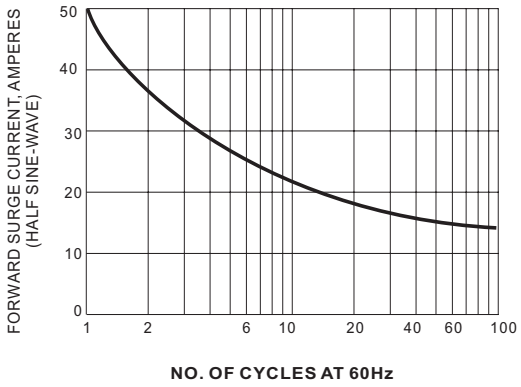


FIG.4 MAX NON-REPETITIVE SURGE CURRENT