



**THE DATASHEET OF  
D1NK100-5060**



# DI150S~DI1510S

## SURFACE MOUNT GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

**VOLTAGE** 50 to 1000 Volt **CURRENT** 1.5 Ampere

**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
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

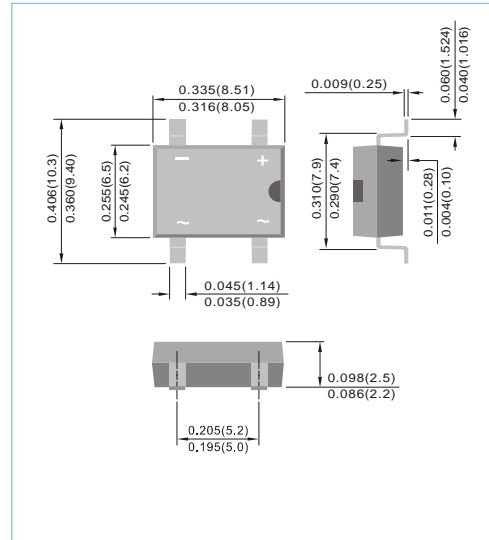
### MECHANICAL DATA

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

Weight: 0.0105 ounce, 0.3 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%

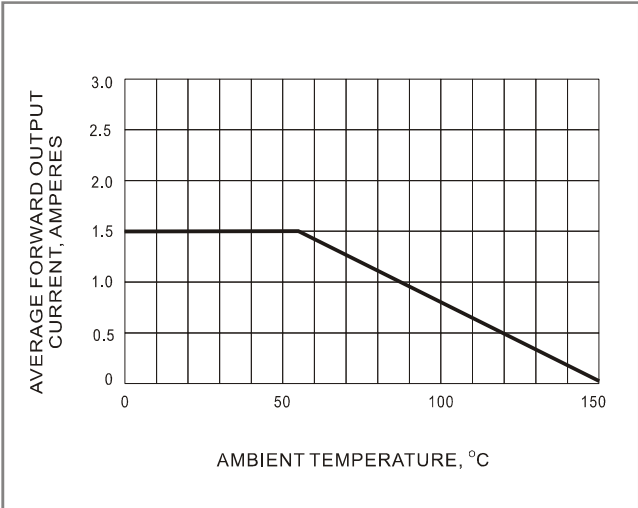
PARAMETER	SYMBOL	DI150S	DI151S	DI152S	DI154S	DI156S	DI158S	DI1510S	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current $T_A=40^\circ\text{C}$	$I_{AV}$	1.5							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	50							A
$I^2t$ Rating for fusing ( $t < 8.35\text{ms}$ )	$I^2t$	10							$\text{A}^2\text{t}$
Maximum Forward Voltage Drop per Bridge Element at 1A	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	$I_R$	5 500							$\mu\text{A}$
Typical Junction Capacitance (Note 1)	$C_J$	25							pF
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	40 15							$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150							$^\circ\text{C}$

#### NOTES :

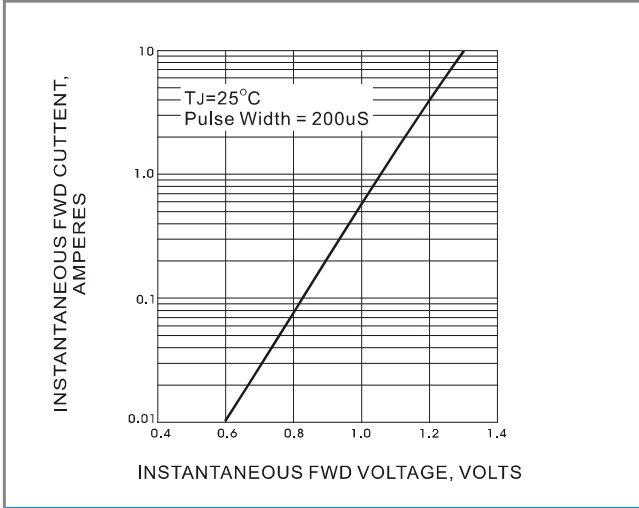
1. Measured at 1 MHz and applied reverse voltage of 4 Volts
2. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.5 X 0.5"(13 X 13mm) copper pads

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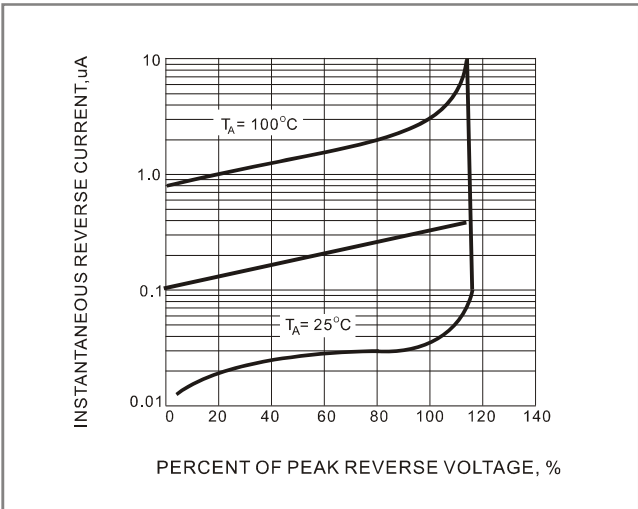
## RATING AND CHARACTERISTIC CURVES



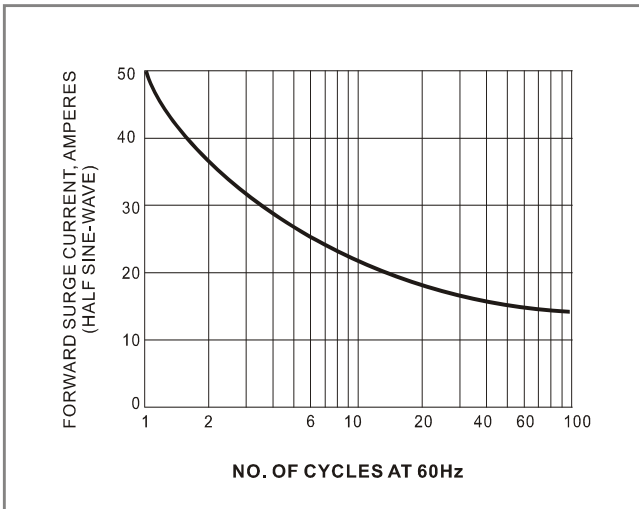
**FIG.1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 TYPICAL FORWARD CHARACTERISTICS**



**FIG.3 TYPICAL REVERSE CHARACTERISTICS**



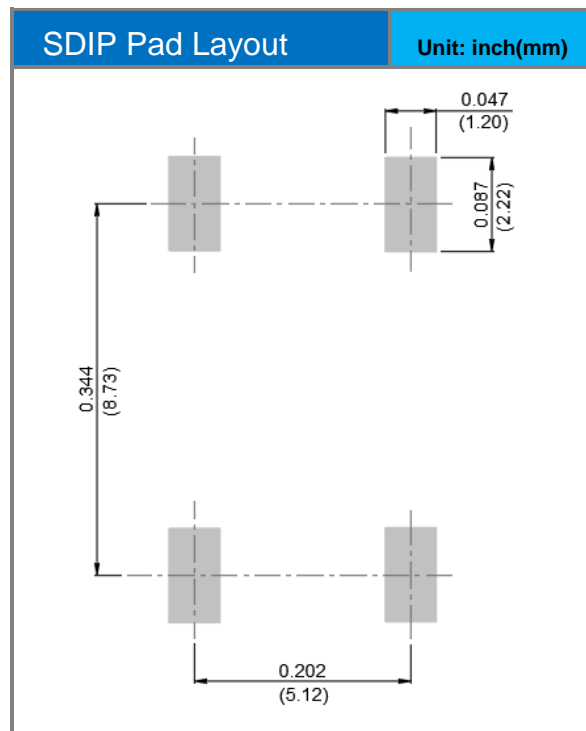
**FIG.4 MAX NON-REPETITIVE SURGE CURRENT**

## DI150S~DI1510S

### Product and Packing Information

Part No.	Package Type	Packing Type	Marking
DI150S	SDIP	1.5K pcs / 13" reel	DI150S
DI151S	SDIP	1.5K pcs / 13" reel	DI151S
DI152S	SDIP	1.5K pcs / 13" reel	DI152S
DI154S	SDIP	1.5K pcs / 13" reel	DI154S
DI156S	SDIP	1.5K pcs / 13" reel	DI156S
DI158S	SDIP	1.5K pcs / 13" reel	DI158S
DI1510S	SDIP	1.5K pcs / 13" reel	DI1510S

### Mounting Pad Layout



## DI150S~DI1510S

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