



# DI200S~DI2010S

## DUAL-IN-LINE GLASS PASSIVATED SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER

**VOLTAGE** 50~1000 Volts

**CURRENT** 2.0 Amperes

**SDIP**

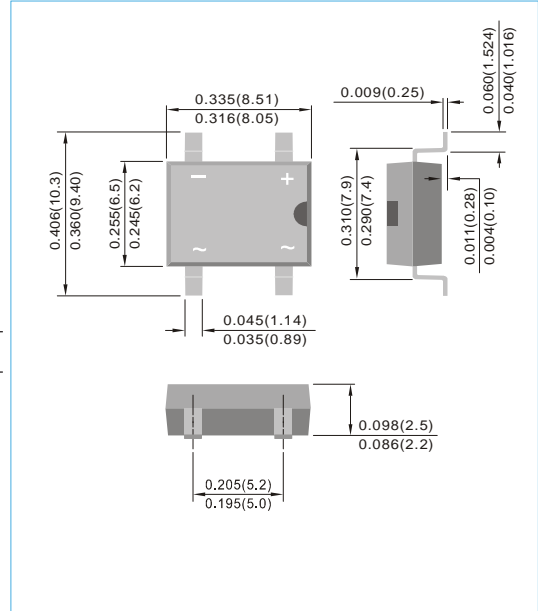
Unit : inch(mm)

### 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
- In compliance with EU RoHS 2002/95/EC directives

### 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
- Mounting Position: Any
- Weight: 0.0115 ounce, 0.3268 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	DI200S	DI2010S	DI202S	DI204S	DI206S	DI208S	DI2010S	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 $T_A=40^\circ\text{C}$	$I_{F(AV)}$	2.0							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 ( $t < 8.35\text{ms}$ )	$I^2t$	10.0							$\text{A}^2\text{S}$
Maximum Forward Voltage Drop per Bridge Element at 2.0A	$V_F$	1.1							V
Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$	$I_R$	5.0 500							$\mu\text{A}$
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 Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150							$^\circ\text{C}$

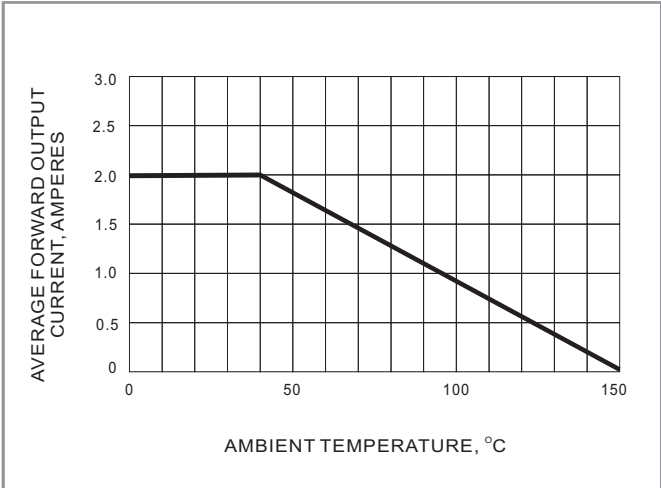
#### NOTES:

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 X 0.5"(13 X 13mm) copper pads

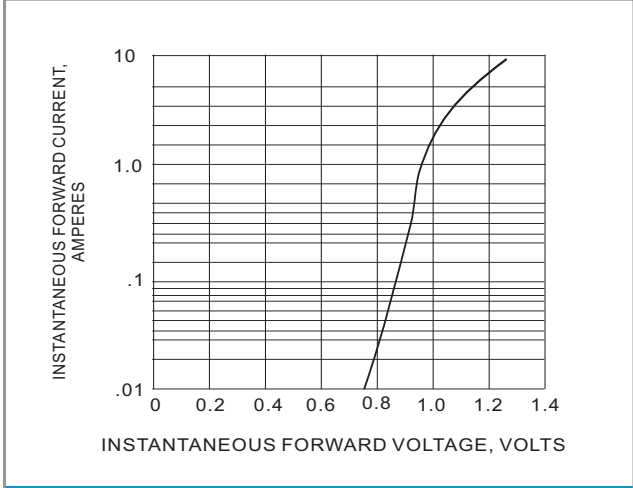


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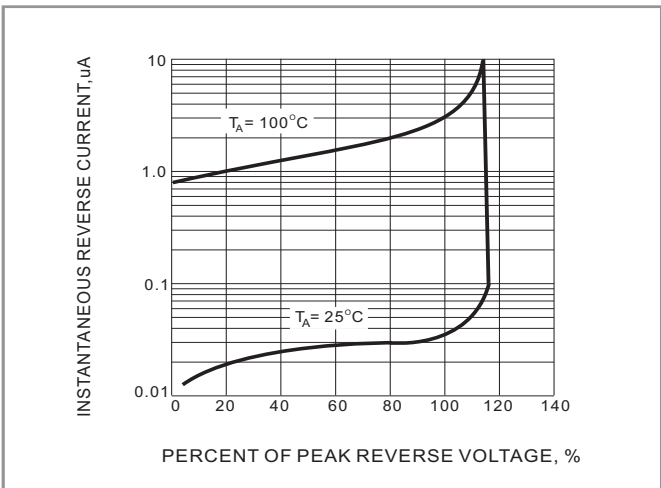
## RATING AND CHARACTERISTIC CURVES



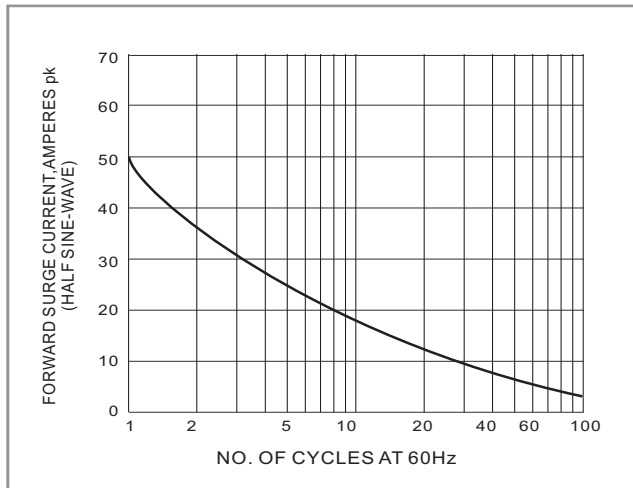
**FIG. 1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**Fig.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 3 TYPICAL REVERSE CHARACTERISTICS**



**Fig.4 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**