Semiconductor

Data Sheet

0.8 Amp Glass Passivated Single Phase Silicon Bridge

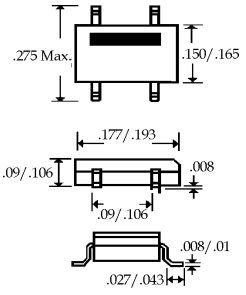
D1S . . . D12S Series

Description



MiniDip

Mechanical Dimensions



(Dimensions in inches)

Features

- COMPACT SIZE
- LOW LEAKAGE CURRENT
- 30 AMP SURGE OVERLOAD RATING
- EXCEEDS ENVIRONMENTAL STANDARDS OF MIL STD. 19500
- MEETS UL SPECIFICATION 94V-0
- GLASS PASSIVATED JUNCTIONS

Electrical Characteristics @ 25°C.	D1S	D2S	D4S	D6S	D8S	D10S	D12S	Units
Maximum Ratings								
Peak Repetitive Reverse Voltage...V_{RRM}	100	200	400	600	800	1000	1200	Volts
RMS Reverse Voltage...$V_{R(rms)}$	70	140	280	420	560	700	840	Volts
DC Blocking Voltage...V_{DC}	100	200	400	600	800	1000	1200	Volts
Average Forward Rectified Current...$I_{F(av)}$ T_A = 40°C	0.8							Amps
Non-Repetitive Peak Forward Surge Current...I_{FSM} 8.3 mS Single ½ Sine Wave Imposed on Rated Load	30							Amps
Point Rating for Fusing...(T < 8.3 mS)	10							A^2S
Forward Voltage...V_F Bridge Element @ 0.4 Amp	1.0						1.1	Volts
DC Reverse Current...I_R @ Rated DC Blocking Voltage T_J = 25°C	5.0							µA
T_J =125°C	0.5							mA
Typical Junction Capacitance per leg(1)...C_J	25.0							pF
Typical Thermal Resistance per leg(2) $R_{\theta JA}$	85.0							°C/W
$R_{\theta JL}$	20.0							
Operating and Storage Temperature Range...T_J, T_{STRG}	-55 to 150							°C

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Fig. 1 Max. Non-Repetitive Surge Current

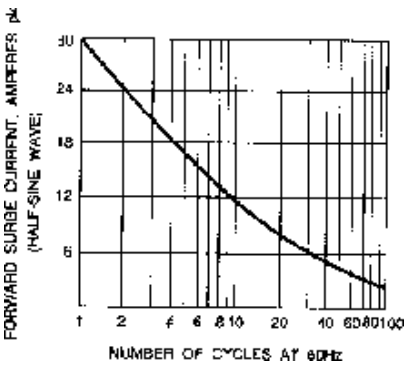


Fig. 2 Derating Curve for Output Rectified Current

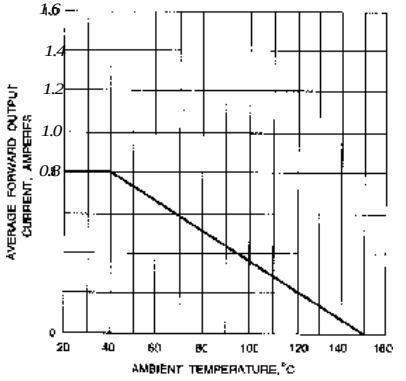


Fig. 3 Typical Forward Characteristics

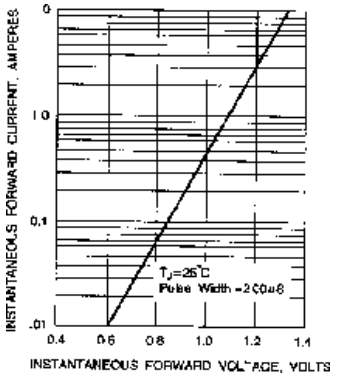
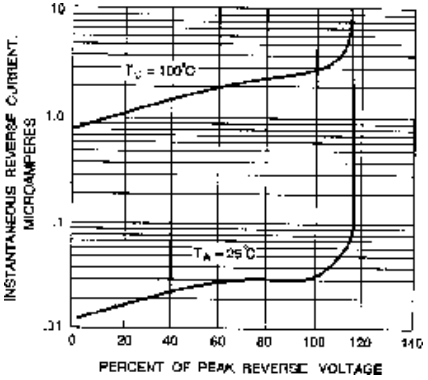


Fig. 4 Typical Reverse Characteristics



Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 HZ Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 volts.
2. Thermal resistance from junction to ambient and junction to lead mounted on PCB with 0.5" x 0.5" copper pads.