NEW PRODUCT

DSRHD02 – DSRHD08

1.0A DSR BRIDGE
DIODESTAR RECTIFIER

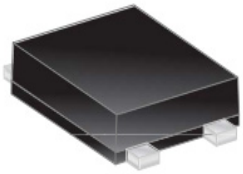
Features

- Glass Passivated Bridge Rectifier
- Excellent High Temperature Stability
- 150ºC Operating Junction Temperature
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

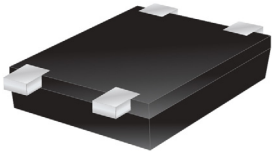
Mechanical Data

- Case: T-MiniDIP
- Case Material: Molded Plastic "Green" Molding Compound, UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish – Matte Tin over Copper Lead Frame, Solderable per MIL-STD-202, Method 208 e3
- Polarity: See Diagram
- Weight: 0.092 grams (approximate)

T-MiniDIP



Top View



Bottom View

Ordering Information (Note 4)

Part Number	Case	Packaging
DSRHD02-13	T-MiniDIP	5000/Tape & Reel
DSRHD04-13	T-MiniDIP	5000/Tape & Reel
DSRHD06-13	T-MiniDIP	5000/Tape & Reel
DSRHD08-13	T-MiniDIP	5000/Tape & Reel

Notes:
1. EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant. All applicable RoHS exemptions applied.
2. See http://www.diodes.com for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. For packaging details, go to our website at http://www.diodes.com.

Marking Information

Dxx = Product Type Marking Code
12 = 200V
14 = 400V
16 = 600V
18 = 800V

= Manufacturers' Code Marking
YWW = Date Code Marking
Y = Last Digit of Year (ex: 2 = 2012)
WW = Week Code (01 ~ 53)

NEW PRODUCT

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitance load, derate current by 20%.

Characteristic	Symbol	DSRHD02	DSRHD04	DSRHD06	DSRHD08	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{RM}	200	400	600	800	V
Average Rectified Output Current	I_O	1.0				A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (Per Diode)	I_{FSM}	30				A
Minimum Fusing Current Rating (t < 8.3 ms)	I^2t	3.73				A^2s

Thermal Characteristics

Characteristic		Symbol	Value	Unit
Typical Thermal Resistance Junction to Lead		$R_{\theta JL}$	25	°C/W
Typical Thermal Resistance Junction to Ambient	On Aluminum Substrate	$R_{\theta JA}$	62.5	°C/W
	On Glass-Epoxy Substrate		80	
Operating and Storage Temperature Range		T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Max	Unit	Test Condition
Forward Voltage (Per Diode)	V_F	0.95	V	I_F = 0.4A, T_J = +25°C
		1.1		I_F = 1.0A, T_J = +25°C
Reverse Current (Note 5) (Per Diode) V_R = Rated Block Voltage	I_R	10 150	μA	V_R = Rated Block Voltage, T_J = 25°C T_J = 125°C

Notes: 5. Short duration pulse test used to minimize self-heating effect.

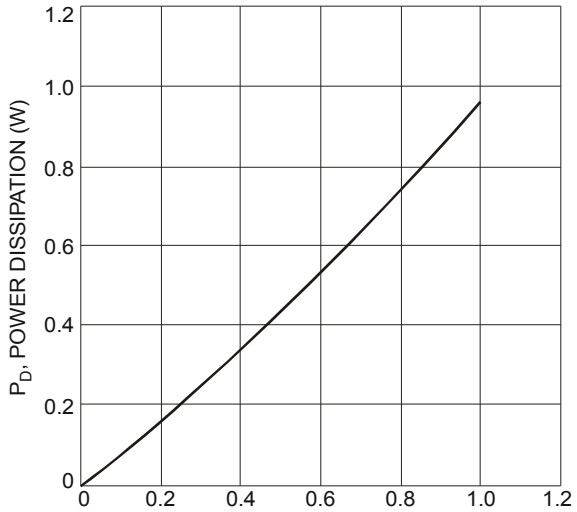


Fig. 1 Forward Power Dissipation

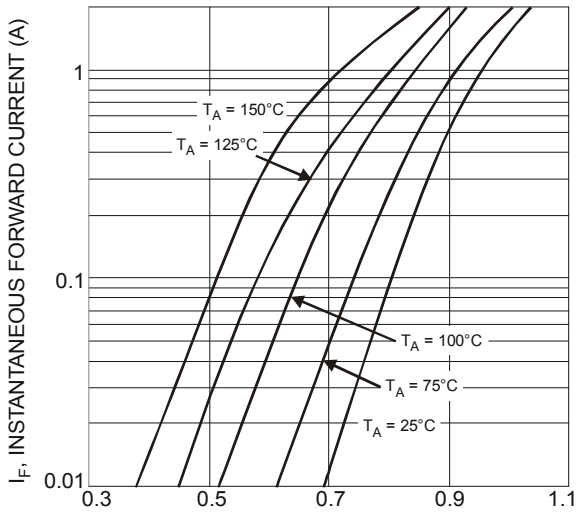


Fig. 2 Typical Forward Characteristics

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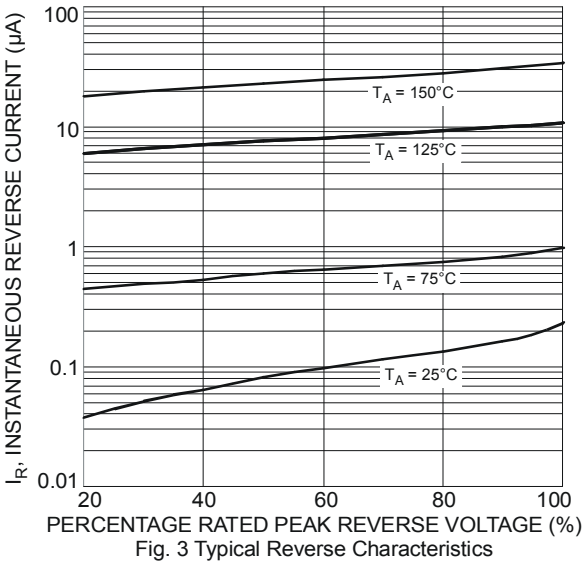


Fig. 3 Typical Reverse Characteristics

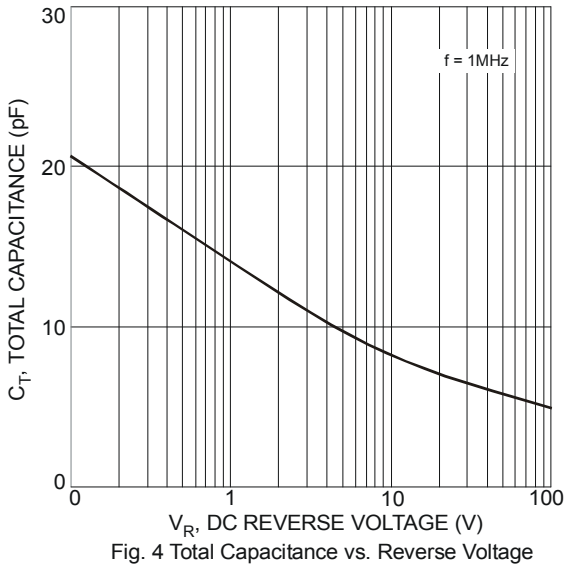


Fig. 4 Total Capacitance vs. Reverse Voltage

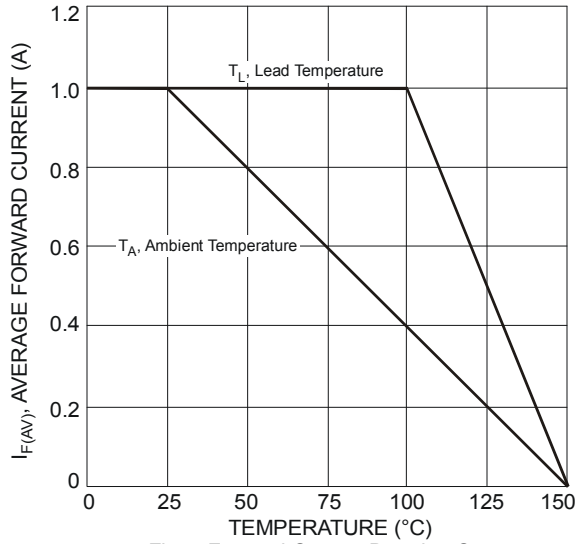


Fig. 5 Forward Current Derating Curve

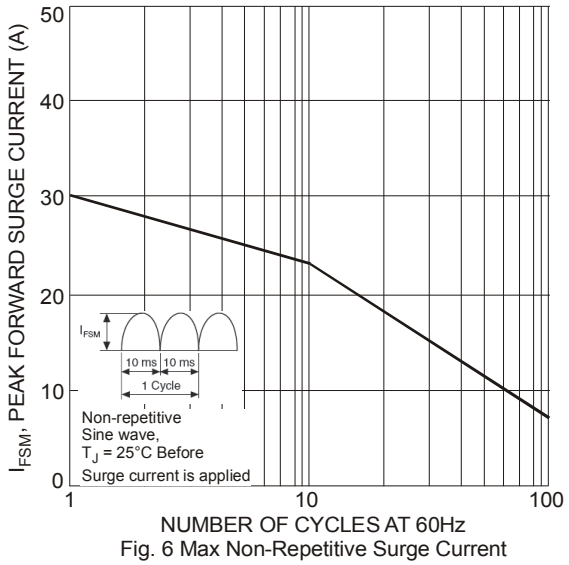
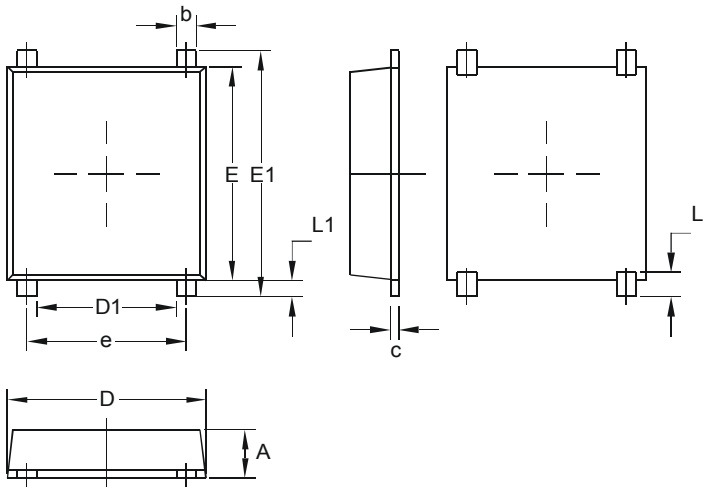


Fig. 6 Max Non-Repetitive Surge Current

Package Outline Dimensions

Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for latest version.



T-MiniDIP		
Dim	**Min**	**Max**
A	1.15	1.27
b	0.60	0.70
c	0.15	0.25
D	4.90	5.10
D1	3.20	3.50
E	5.30	5.50
E1	6.00	6.40
e	3.90	4.10
L	0.25	0.80
L1	0.25	0.55
All Dimensions in mm		

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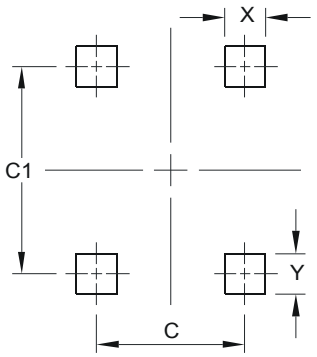
Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.



Dimensions	Value (in mm)
C	4.00
C1	5.60
X	0.75
Y	0.85