

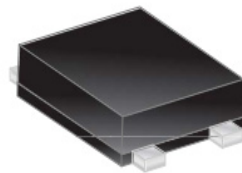
## Features

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

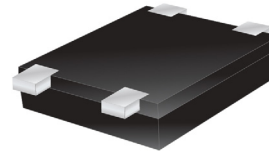
## Mechanical Data

- 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
- 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

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

**Maximum Ratings** (@ $T_A = +25^\circ\text{C}$ , 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	$V_{RRM}$					
Working Peak Reverse Voltage	$V_{RWM}$	200	400	600	800	V
DC Blocking Voltage	$V_{RM}$					
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 <sup>2</sup> s

**Thermal Characteristics**

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

**Electrical Characteristics** (@ $T_A = +25^\circ\text{C}$ , unless otherwise specified.)

Characteristic	Symbol	Max	Unit	Test Condition
Forward Voltage (Per Diode)	$V_F$	0.95	V	$I_F = 0.4\text{A}, T_J = +25^\circ\text{C}$
		1.1		$I_F = 1.0\text{A}, T_J = +25^\circ\text{C}$
Reverse Current (Note 5) (Per Diode) $V_R =$ Rated Block Voltage	$I_R$	10 150	$\mu\text{A}$	$V_R =$ Rated Block Voltage, $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$

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

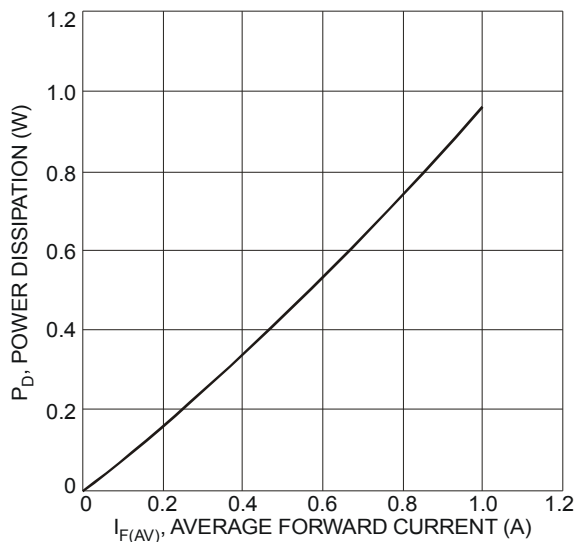


Fig. 1 Forward Power Dissipation

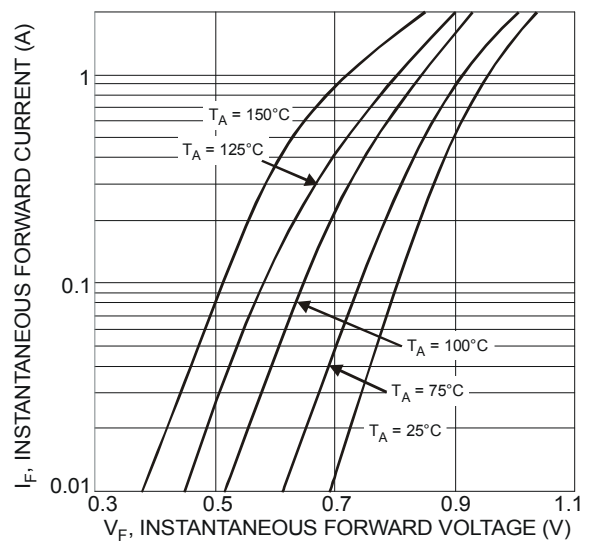


Fig. 2 Typical Forward Characteristics

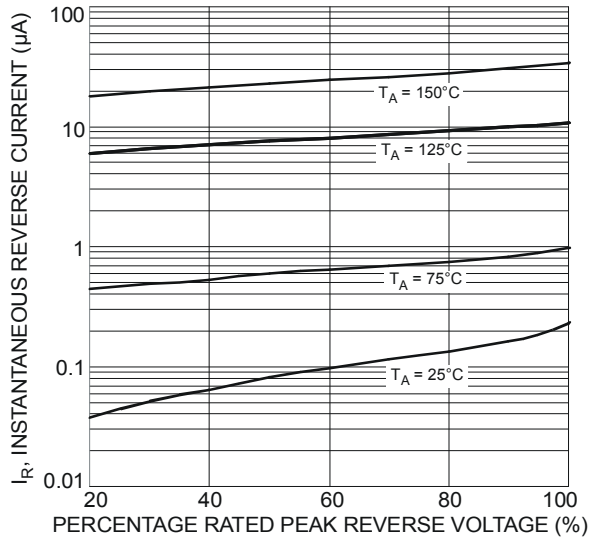


Fig. 3 Typical Reverse Characteristics

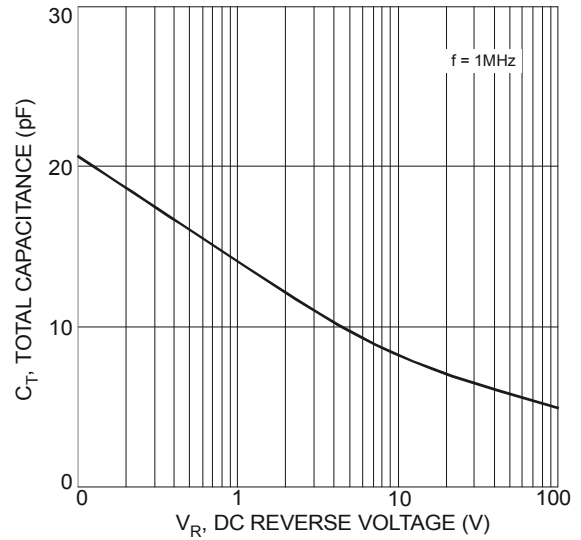


Fig. 4 Total Capacitance vs. Reverse Voltage

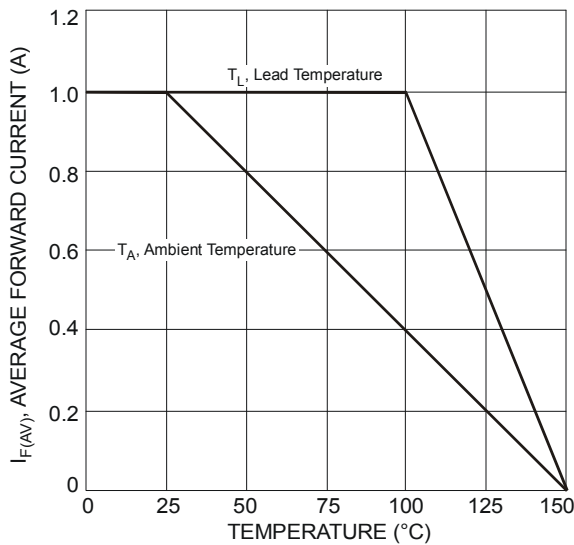


Fig. 5 Forward Current Derating Curve

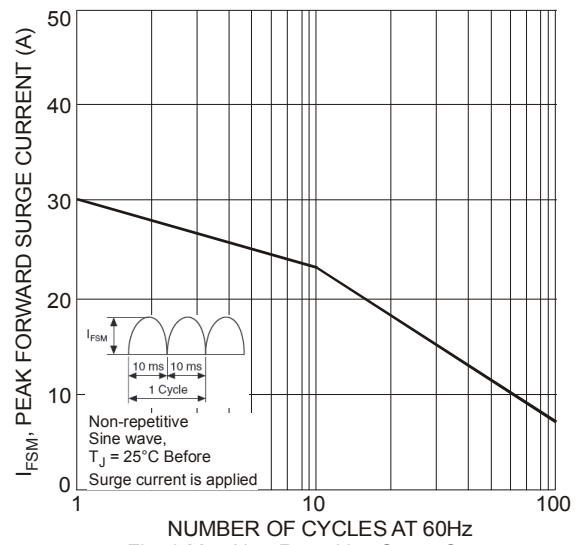
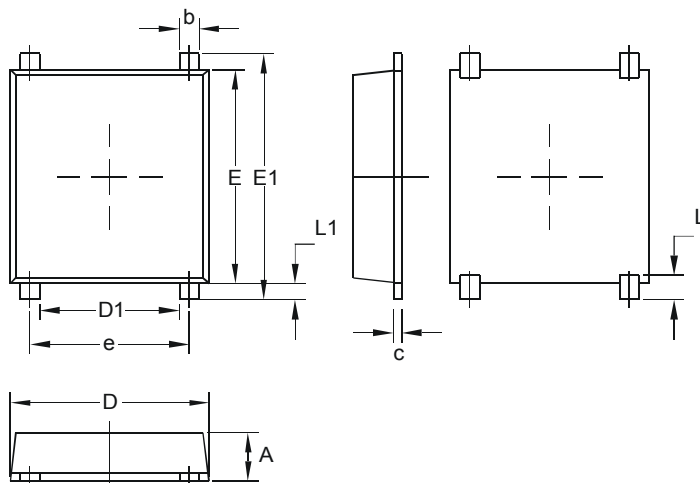


Fig. 6 Max Non-Repetitive Surge Current

**Package Outline Dimensions**

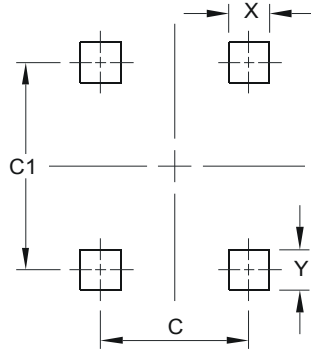
Please see AP02002 at <http://www.diodes.com/datasheets/ap02002.pdf> for latest version.



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		

**Suggested Pad Layout**

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



Dimensions	Value (in mm)
<b>C</b>	4.00
<b>C1</b>	5.60
<b>X</b>	0.75
<b>Y</b>	0.85

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