





1.0A DSR BRIDGE DIODESTAR RECTIFIER

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 @3
- Polarity: See Diagram
- Weight: 0.092 grams (approximate)









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



 $\underline{D}xx = Product Type Marking Code$

12 = 200V

14 = 400V

16 = 600V

18 = 800V

O'' = 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°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 | ٧ |
| Average Rectified Output Current | I _O | | 1 | .0 | | Α |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (Per Diode) | I _{FSM} | 30 | | | Α | |
| Minimum Fusing Current Rating (t < 8.3 ms) | l ² t | | 3. | 73 | | A ² s |

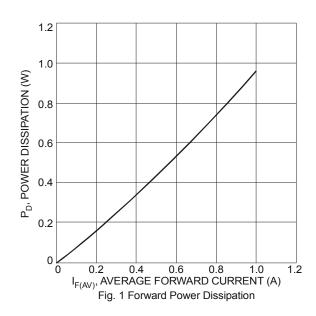
Thermal Characteristics

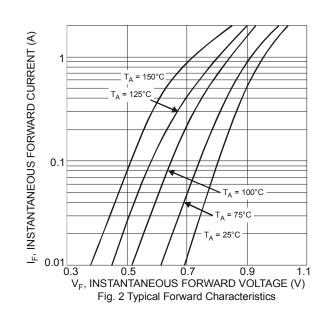
| Characteristic | | Symbol | Value | Unit |
|--|--|-----------------------------------|-------------|------|
| Typical Thermal Resistance Junction to Lead | | $R_{	heta JL}$ | 25 | °C/W |
| Typical Thermal Resistance Junction to Ambient | On Aluminum Substrate On Glass-Epoxy Substrate | $R_{	hetaJA}$ | 62.5 80 | °C/W |
| 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 | $I_F = 0.4A, T_J = +25^{\circ}C$ |
| Toward Voltage (Fer Diode) | | 1.1 | | $I_F = 1.0A, T_J = +25^{\circ}C$ |
| | I _R | 10 150 | μА | V _R = Rated Block Voltage, |
| Reverse Current (Note 5) (Per Diode) V _R = Rated Block Voltage | | | | $T_J = 25^{\circ}C$ |
| | | | | T _J = 125°C |

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

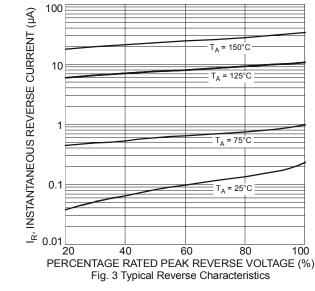


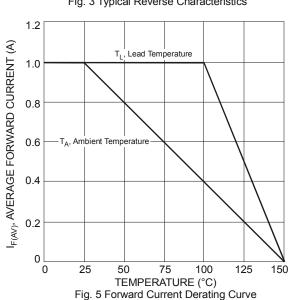


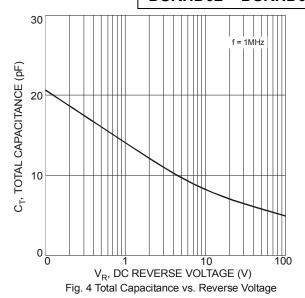


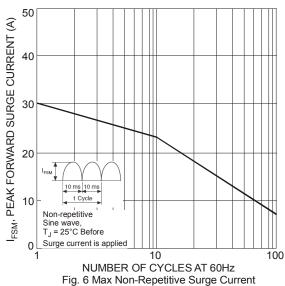


DSRHD02 - DSRHD08



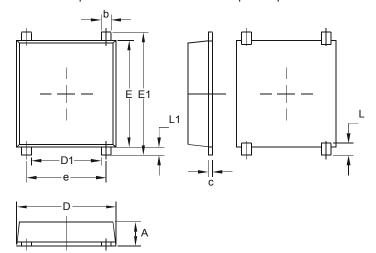






Package Outline Dimensions

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



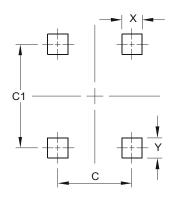
| T-MiniDIP | | | | |
|----------------------|------|------|--|--|
| Dim | Min | Max | | |
| Α | 1.15 | 1.27 | | |
| b | 0.60 | 0.70 | | |
| С | 0.15 | 0.25 | | |
| D | 4.90 | 5.10 | | |
| D1 | 3.20 | 3.50 | | |
| Е | 5.30 | 5.50 | | |
| E1 | 6.00 | 6.40 | | |
| е | 3.90 | 4.10 | | |
| L | 0.25 | 0.80 | | |
| 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) | | |
|------------|------------------|--|--|
| С | 4.00 | | |
| C1 | 5.60 | | |
| Х | 0.75 | | |
| Υ | 0.85 | | |

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