

**Product Summary** (@T<sub>A</sub> = +25°C)

V <sub>RRM</sub> (V)	I <sub>O</sub> (A)	V <sub>F</sub> Max (V)	I <sub>R</sub> Max (μA)
100	1	0.85	10

**Features and Benefits**

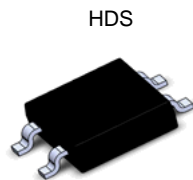
- Rating to 100V PRV
- Ideal for Printed Circuit Board
- Reliable Low Cost Construction Utilizing Molded Plastic Technique
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](https://www.diodes.com/contact-us) or your local Diodes representative. <https://www.diodes.com/quality/product-definitions/>**

**Application**

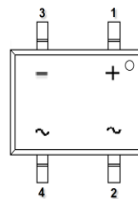
- Energy saving lamps
- Mobile battery chargers

**Mechanical Data**

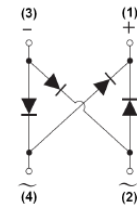
- Package: HDS
- Package Material: Molded Plastic, "Green" Molding Compound; UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Lead-Free Plating (Matte Tin Finish), Solderable per MIL-STD-202, Method 208 **(e3)**
- Polarity: As Marked on Body
- Weight: 0.0923 grams (Approximate)



Top View



Pin Diagram



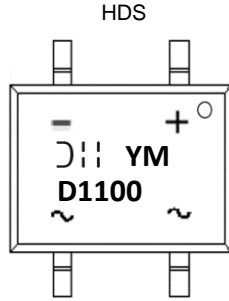
Device Symbol

**Ordering Information** (Note 4)

Part Number	Package	Packing	
		Qty.	Carrier
DHDS1100-13	HDS	3,000	Tape & Reel

- Notes:
1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
  2. See <https://www.diodes.com/quality/lead-free/> 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 <https://www.diodes.com/design/support/packaging/diodes-packaging/>.

## Marking Information



D = Manufacturer's Code Marking  
 D1100 = Product Type Marking Code  
 YM = Date Code Marking  
 Y = Year (ex: K = 2023)  
 M = Month (ex: 5 = May)

### Date Code Key

Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Code	K	L	M	N	P	R	S	T	U	V	W	X
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

## Maximum Ratings (@T<sub>A</sub> = +25°C, unless otherwise specified.)

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	100	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>RM</sub>		
Average Rectified Output Current	I <sub>O</sub>	1	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	I <sub>FSM</sub>	30	A

## Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Ambient (Note 5)	R <sub>θJA</sub>	75	°C/W
Typical Thermal Resistance Junction to Case (Note 5)	R <sub>θJC</sub>	13	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

Note: 5. The unit mounted on glass-epoxy substrate with 1oz/ft<sup>2</sup> 2mm x 2mm copper pad.

## Electrical Characteristics (@T<sub>A</sub> = +25°C, unless otherwise specified.)

Characteristic	Symbol	Typ	Max	Unit	Test Condition
Forward Voltage Drop (Note 6)	V <sub>F</sub>	— 0.60	0.85 —	V	I <sub>F</sub> = 1A, T <sub>J</sub> = +25°C I <sub>F</sub> = 1A, T <sub>J</sub> = +125°C
Leakage Current (Note 6)	I <sub>R</sub>	— —	10 5.0	μA mA	V <sub>R</sub> = 100V, T <sub>J</sub> = +25°C V <sub>R</sub> = 100V, T <sub>J</sub> = +100°C
Total Capacitance	C <sub>T</sub>	75	—	pF	V <sub>R</sub> = 5V, f = 1MHz

Note: 6. Short duration pulse test used to minimize self-heating effect.

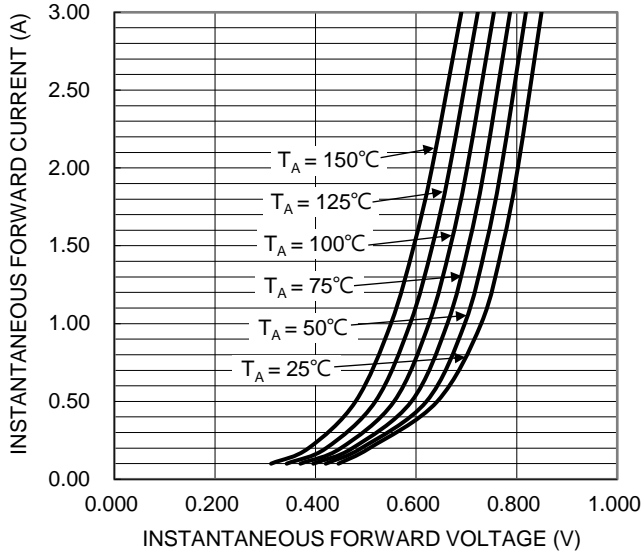


Figure 1. Typical Forward Characteristics

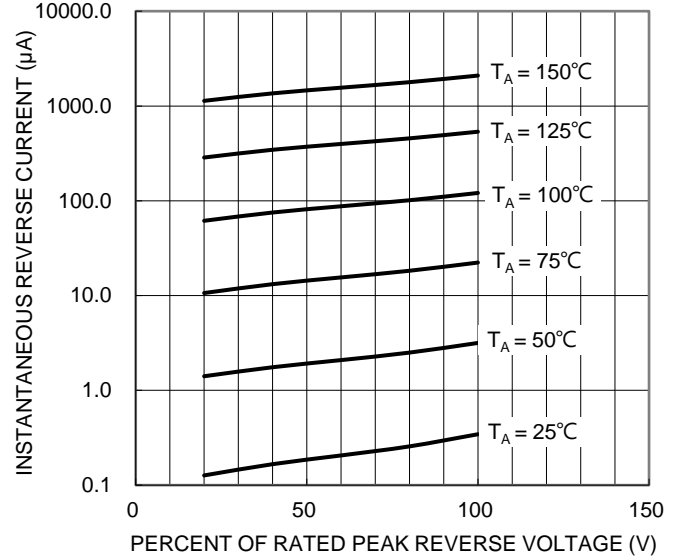


Figure 2. Typical Reverse Characteristics

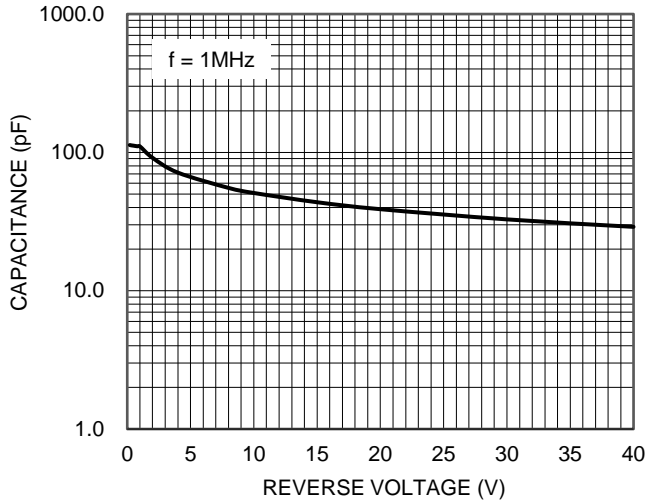
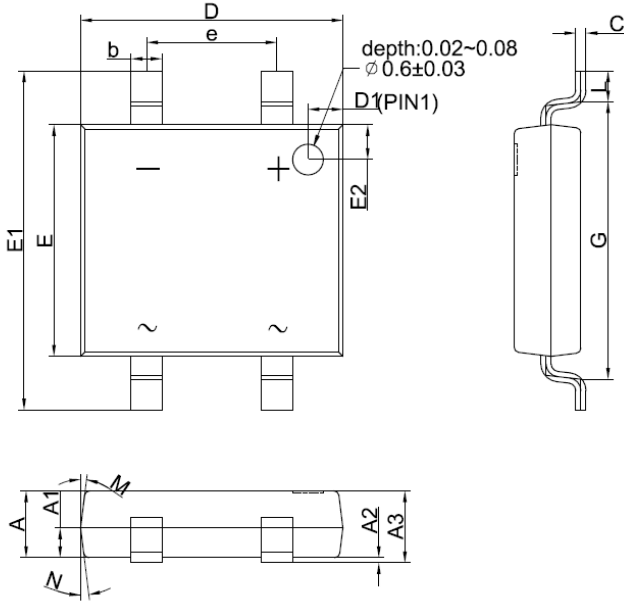


Figure 3. Typical Junction Capacitance

**Package Outline Dimensions**

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

**HDS**

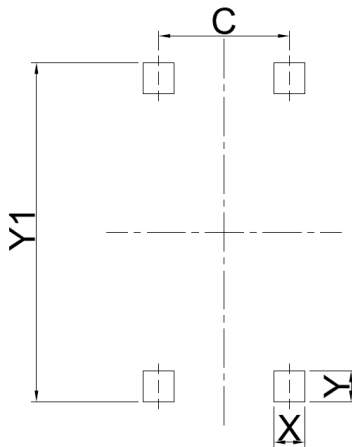


HDS		
DIM	MIN	MAX
A	1.20	1.30
A1	0.43	0.63
A2	0.00	0.15
A3	1.20	1.40
b	0.45	0.75
C	0.10	0.30
D	4.85	5.25
D1	0.45	0.85
e	2.54 TYP	
E	4.25	4.65
E1	6.40	6.80
E2	0.45	0.85
G	5.20	5.60
L	0.40	0.80
M	7° TYP	
N	7° TYP	
All Dimensions in millimeters		

**Suggested Pad Layout**

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

**HDS**



Dimensions	Value (in mm)
X	0.90
Y	1.50
Y1	7.20
C	2.50

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