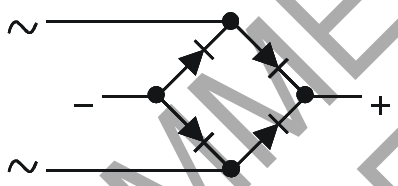
0.8A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

Features and Benefits

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Ideally Suited for Automated Assembly
- Miniature Package Saves Space on PC Boards
- UL Listed Under Recognized Component Index, File Number E94661
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please contact us or your local Diodes representative. https://www.diodes.com/quality/product-definitions/**

Mechanical Data

- Case: MiniDIP
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish - Tin. Plated Leads, Solderable per MIL-STD-202, Method 208 e3
- Polarity: As Marked on Case
- Marking: Product Type Marking Code, Date Code, & Polarity Markings
- Weight: 0.125 grams (Approximate)



Equivalent Circuit

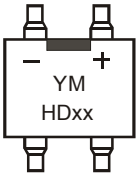
Ordering Information (Note 3)

Part Number*	Packaging	Shipping
HDxx-T	MiniDIP	3k/Tape & Reel, 13-inch

*xx = Device type, e.g. HD02-T or HD04-T, etc.

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. For packaging details, go to our website at https://www.diodes.com/design/support/packaging/diodes-packaging/.

Marking Information



HDxx = Product Type Marking Code (ex: HD04)
YM = Date Code Marking
Y = Last Digit of the Year
M = See Month/Code Table Below

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_A = +25°C, unless otherwise specified.)

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

Characteristic	Symbol	HD01	HD02	HD04	HD06	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RMM} V_{RWM} V_{DC}	100	200	400	600	V
RMS Reverse Voltage	V_{RMS}	70	140	280	420	V
Average Forward Rectified Current (Note 4) @T_A = +40°C	I_O	0.8				A
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	30				A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Ambient (Note 4)	$R_{\theta JA}$	75	°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	Value	Unit
Instantaneous Voltage Drop @ 0.4A (Per Element)	V_F	1.0	V
Peak Reverse Current at Rated @T_A = +25°C DC Blocking Voltage (Per Element) @T_A = +125°C	I_R	5.0 500	µA
Typical Total Capacitance (Per Element) (Note 5)	C_T	10	pF

Notes: 4. Mounted on PC Board.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V.

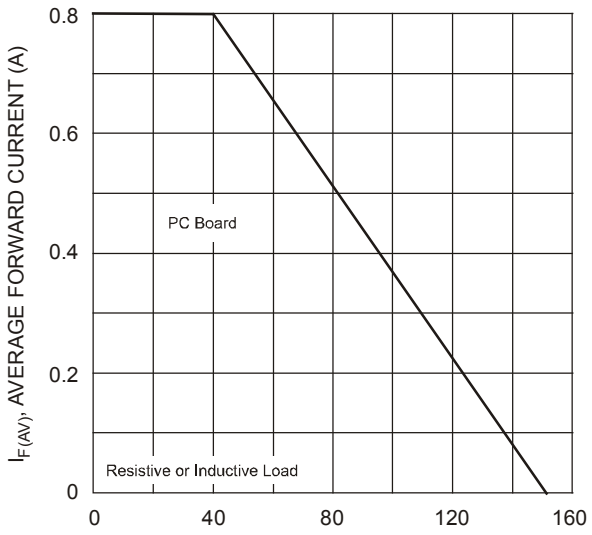


Fig. 1 Output Current Derating Curve

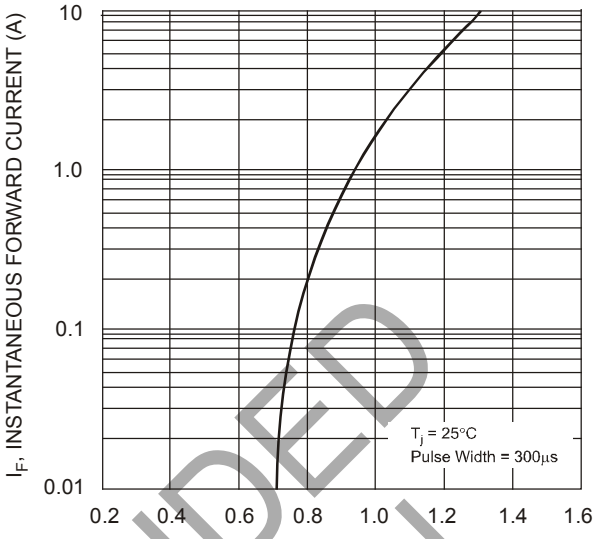


Fig. 2 Typical Forward Characteristics (per element)

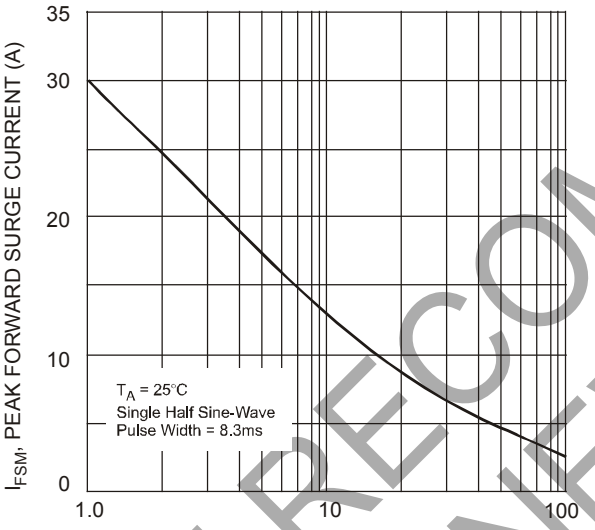


Fig. 3 Maximum Peak Forward Surge Current (per element)

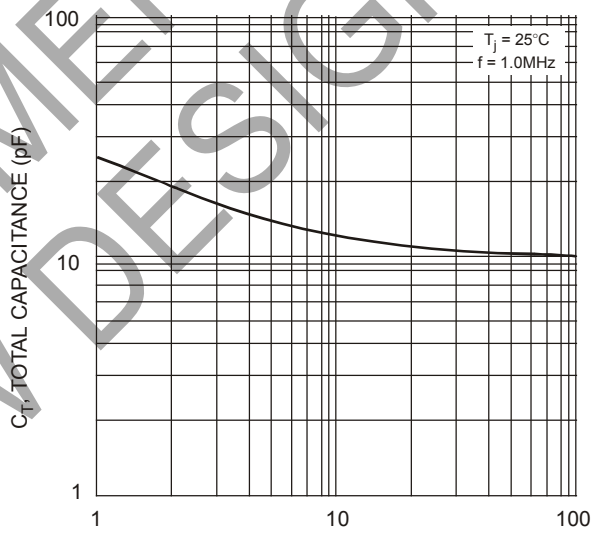


Fig. 4 Typical Total Capacitance (per element)

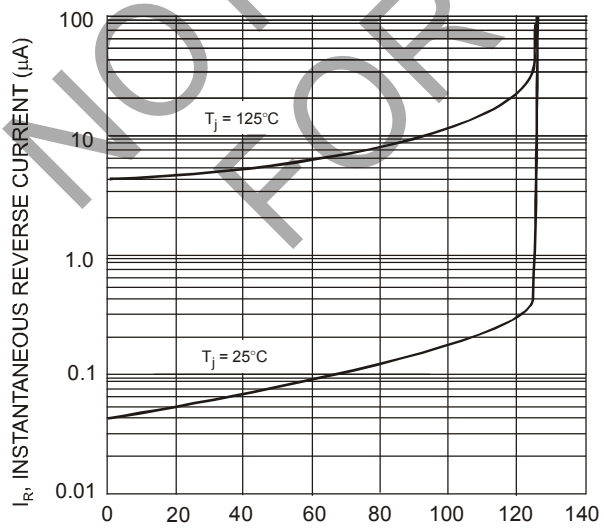
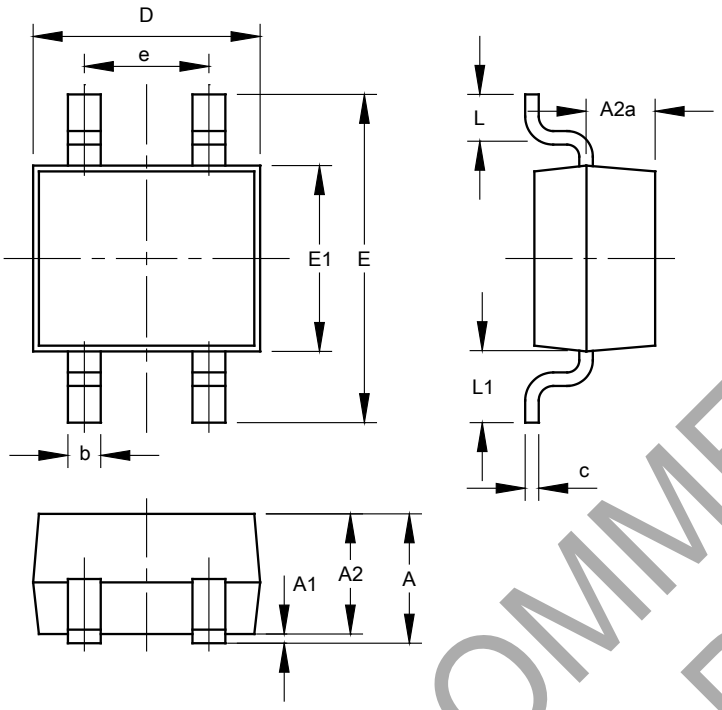


Fig. 5 Typical Reverse Characteristics (per element)

Package Outline Dimensions

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

MiniDIP

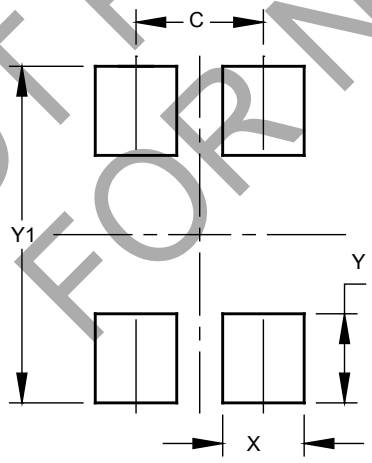


MiniDIP		
Dim	**Min**	**Max**
A	--	3.00
A1	--	0.20
A2	2.30	2.70
A2a	1.20	1.60
b	0.50	0.80
c	0.15	0.35
D	4.50	4.90
E	--	7.00
E1	3.60	4.00
e	2.30	2.70
L	0.70	1.10
L1	1.10	2.12
All Dimensions in mm		

Suggested Pad Layout

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

MiniDIP



Dimensions	Value (in mm)
C	2.50
X	1.65
Y	1.80
Y1	6.80

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