HD01 - HD06

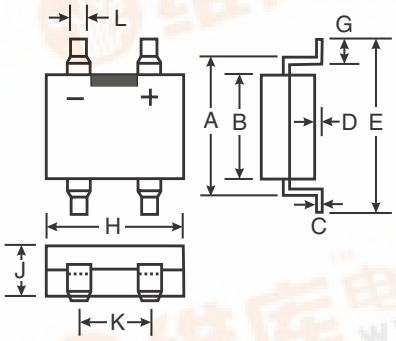
0.8A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

Features

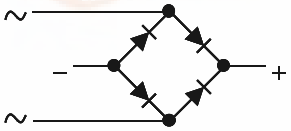
- Glass Passivated Die Construction
- Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Ideally Suited for Automatic Assembly
- Miniature Package Saves Space on PC Boards
- UL Listed Under Recognized Component Index, File Number E94661
- **Lead Free Finish, RoHS Compliant (Note 3)**

Mechanical Data

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



MiniDIP		
Dim	**Min**	**Max**
A	5.43	5.75
B	3.6	4.0
C	0.15	0.35
D	0.05	0.20
E	—	7.0
G	0.70	1.10
H	4.5	4.9
J	2.3	2.7
K	2.3	2.7
L	0.50	0.80
All Dimensions in mm		



Equivalent Schematic

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

Single phase, 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_{RRM} V_{RWM} V_{DC}	100	200	400	600	V
RMS Reverse Voltage	V_{RMS}	70	140	280	420	V
Average Forward Rectified Current (Note 1) T_A = @ 40°C	I_O	0.8				A
Non-Repetitive Peak Forward Surge Current, 8.3 ms Single half-sine-wave Superimposed on Rated Load	I_{FSM}	30				A
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 2)	C_T	10				pF
Typical Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	75				°C/W
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150				°C

Notes:
1. Mounted on Ceramic PC Board.
2. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0 V.
3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see *EU Directive Annex Notes 5 and 7.*

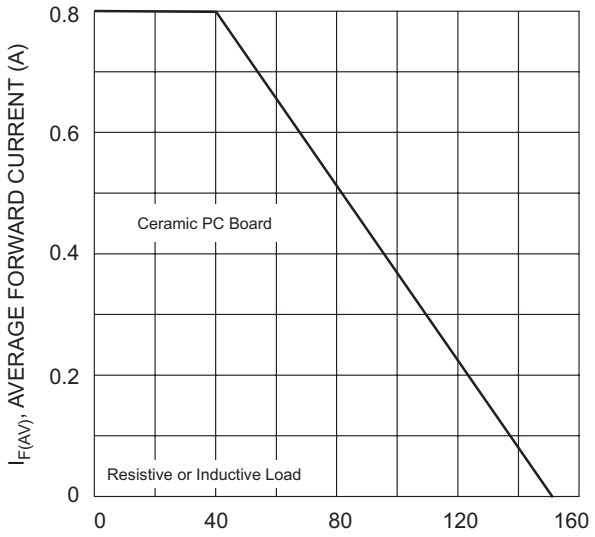


Fig. 1 Output Current Derating Curve

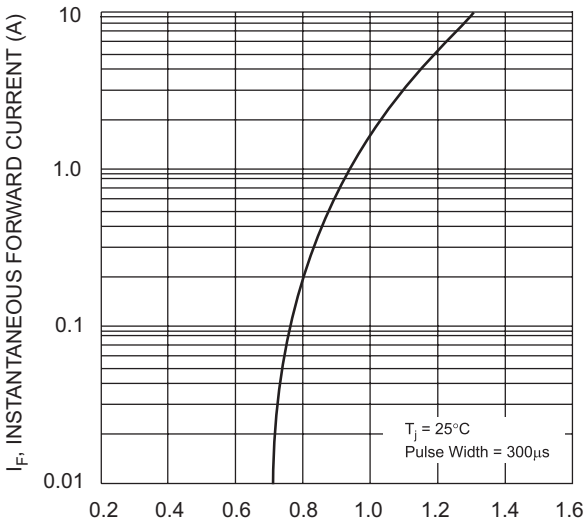


Fig. 2 Typical Forward Characteristics (per element)

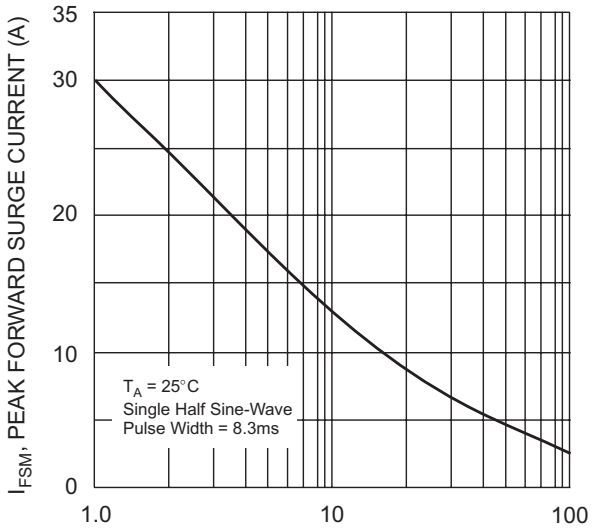


Fig. 3 Maximum Peak Forward Surge Current (per element)

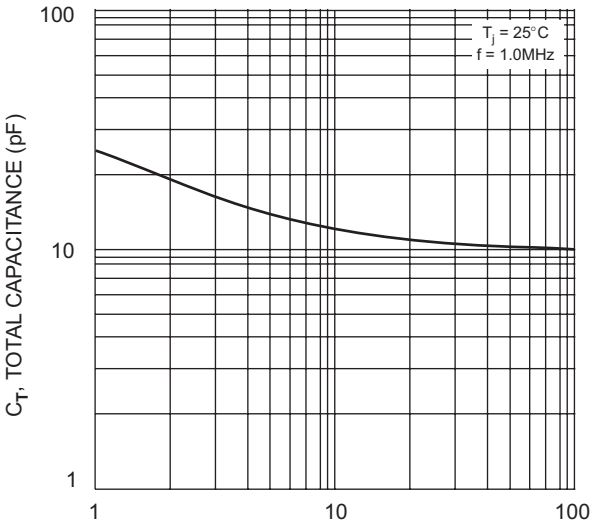


Fig. 4 Typical Total Capacitance (per element)

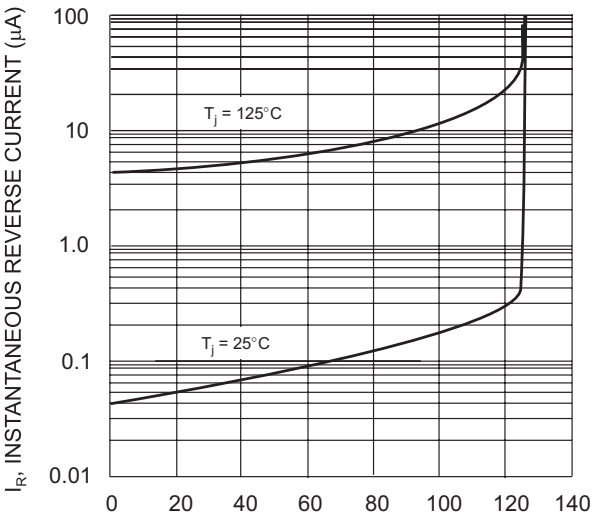


Fig. 5 Typical Reverse Characteristics (per element)

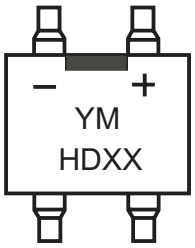
Ordering Information (Note 4)

Device*	Packaging	Shipping
HDxx-T	MiniDIP	3K/Tape & Reel, 13-inch

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

Notes: 4. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information



YM = Date code marking
Y = Last digit of the year
M = See Month/Code Table Below
HDXX = Product type marking code,
Ex: HD04

Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D