



180 Lafayette Road  
 North Hampton, NH 03862-2448  
 PH: 603-964-3165  
 FX: 603-964-3168  
 WWW.PDEELECTRONICS.COM

## Full Wave Bridge Assembly

Standard, Fast, Ultra and Ultra Super Fast Recovery, Single Phase  
 HVFWB Series Rev A

### FEATURES

- Low Forward Voltage Drop
- Low Reverse Leakage Current
- Very Fast Recovery Time
- Small Case Size
- Epoxy Case

### QUICK REFERENCE DATA

- $V_R = 5000V - 20000V$
- $T_{tr} = 35nS - 250nS$
- $I_F = 1A - 3A$

ELECTRICAL CHARACTERISTICS						MAX RATINGS			
Type	Maximum Reverse Voltage $V_R$	Maximum Reverse Current Per Leg $I_R @ V_R$	Maximum Reverse Recovery Time $T_{tr} *1$	Maximum Forward Voltage $V_F$		Average Rectified Forward Current $I_F$	1 Cycle Surge Current $I_{FSM}$	Case Length L (Inches)	Figure
	$T_C = 25^\circ C$	$T_C = 25^\circ C$	$T_A = 25^\circ C$	$T_A = 25^\circ C$		$T_C = 55^\circ C$	$T_C = 25^\circ C$		
	Volts	$\mu A$	nS	Volts	Amps	Amps	Amps		
<b>HVFWB-Standard Recovery 1.0 and 3.0 Amp Glass Passivated Rectifier Assemblies</b>									
2HVFWB5KB	5000	0.5	-	4.8	2.0	2.0	50	1.25	A
2HVFWB8KB	8000	0.5	-	7.2	2.0	2.0	50	1.25	A
2HVFWB5KC	5000	0.5	-	4.8	2.0	2.0	50	1.5	B
2HVFWB10KC	10000	0.5	-	8.4	2.0	2.0	50	1.5	B
2HVFWB10KD	10000	0.5	-	8.4	2.0	2.0	50	2.0	B
2HVFWB15KD	15000	0.5	-	12.0	2.0	2.0	50	2.0	B
2HVFWB15KE	15000	0.5	-	12.0	2.0	2.0	50	2.5	B
2HVFWB20KE	20000	0.5	-	18.0	2.0	2.0	50	2.5	B
5HVFWB5KC	5000	0.5	-	5.2	5.0	5.0	150	1.5	B
5HVFWB7.5KD	7500	0.5	-	6.5	5.0	5.0	150	2.0	B
5HVFWB5KE	5000	0.5	-	5.2	5.0	5.0	150	2.5	B
5HVFWB10KE	10000	0.5	-	10.4	5.0	5.0	150	2.5	B
5HVFWB15KE	15000	0.5	-	13.0	5.0	5.0	150	2.5	B
<b>HVFWB-F-Fast Recovery 1.0 and 3.0 Amp Glass Passivated Rectifier Assemblies</b>									
1HVFWB5KBF	5000	0.3	250	7.2	1.0	1.0	20	1.25	A
1HVFWB10KBF	10000	0.3	250	14.4	1.0	1.0	20	1.25	A
1HVFWB5KCF	5000	0.3	250	7.2	1.0	1.0	20	1.5	B
1HVFWB10KCF	10000	0.3	250	14.4	1.0	1.0	20	1.5	B
2HVFWB5KDF	5000	0.5	150	6.5	2.0	2.0	50	2.0	B
2HVFWB10KDF	10000	0.5	150	13.0	2.0	2.0	50	2.0	B
2HVFWB10KEF	10000	0.5	150	13.0	2.0	2.0	50	2.5	B
2HVFWB15KEF	15000	0.5	150	20.0	2.0	2.0	50	2.5	B
4HVFWB5KCF	5000	0.5	250	7.0	4.0	4.0	100	1.5	B
4HVFWB5KDF	5000	0.5	250	7.0	4.0	4.0	100	2.0	B
5HVFWB5KEF	5000	0.5	250	7.5	5.0	5.0	100	2.5	B
5HVFWB10KEF	10000	0.5	250	14.0	4.0	4.0	100	2.5	B

Specifications subject to change without notice to ensure a better product

**PD&E Electronics** 180 Lafayette Rd. North Hampton, NH 03862  
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Standard, Fast, Ultra and Ultra Super Fast Recovery, Single Phase  
 HVFWB Series Rev A

ELECTRICAL CHARACTERISTICS						MAX RATINGS			
Type	Maximum Reverse Voltage $V_R$	Maximum Reverse Current Per Leg $I_R @ V_R$	Maximum Reverse Recovery Time $T_{rr} *1$	Maximum Forward Voltage $V_F$		Average Rectified Forward Current $I_F$	1 Cycle Surge Current $I_{FSM}$	Case Length L (Inches)	Figure
	$T_C=25^\circ C$	$T_C=25^\circ C$	$T_A=25^\circ C$	$T_A=25^\circ C$		$T_C=55^\circ C$	$T_C=25^\circ C$		
	Volts	$\mu A$	nS	Volts	Amps	Amps	Amps		
<b>HVFWB·UF-Ultra Fast Recovery <math>T_{rr}</math> 75 nsec 1.0 and 3.0 Amp Rectifier Assembly</b>									
2HVFWB5KBUF	5000	1.0	75	8.0	2.0	2.0	35	1.25	A
2HVFWB8KBUF	8000	1.0	75	13.0	2.0	2.0	35	1.25	A
2HVFWB5KCUF	5000	1.0	75	8.0	2.0	2.0	35	1.5	B
2HVFWB10KCUF	10000	1.0	75	16.0	2.0	2.0	35	1.5	B
2HVFWB10KDUF	10000	1.0	75	16.0	2.0	2.0	35	2.0	B
2HVFWB15KDUF	15000	1.0	75	24.0	2.0	2.0	35	2.0	B
2HVFWB15KEUF	15000	1.0	75	24.0	2.0	2.0	35	2.5	B
2HVFWB20KEUF	20000	1.0	75	32.0	2.0	2.0	35	2.5	B
4HVFWB5KCUF	5000	5.0	75	7.0	4.0	4.0	150	1.5	B
4HVFWB5KDUF	5000	5.0	75	7.0	4.25	4.25	150	2.0	B
4HVFWB8KDUF	8000	5.0	75	11.2	4.0	4.0	150	2.0	B
4HVFWB10KEUF	10000	5.0	75	14.0	4.25	4.25	150	2.5	B
4HVFWB15KEUF	15000	5.0	75	21.0	4.0	4.0	150	2.5	B
<b>HVFWB·USF-Ultra Super Fast Recovery <math>T_{rr}</math> 35 nsec 1.0 Amp Rectifier Assemblies</b>									
1HVFWB5KBUSF	5000	1.0	35	7.0	1.0	1.0	10	1.25	A
1HVFWB5KCUSF	5000	1.0	35	7.0	1.0	1.0	10	1.5	B
1HVFWB8KCUSF	8000	1.0	35	11.2	1.0	1.0	10	1.5	B
1HVFWB10KDUSF	10000	1.0	35	14.0	1.0	1.0	10	2.0	B
1HVFWB15KDUSF	15000	1.0	35	21.0	0.9	0.9	10	2.0	B
1HVFWB15KEUSF	15000	1.0	35	21.0	1.0	1.0	10	2.5	B
1HVFWB20KEUSF	20000	1.0	35	28.0	0.9	0.9	10	2.5	B
<b>HVFWB·USF-Ultra Super Fast Recovery <math>T_{rr}</math> 40 nsec 2.0 Amp Rectifier Assemblies</b>									
3HVFWB5KCUSF	5000	5.0	40	10.0	3.0	3.0	60	1.5	B
3HVFWB5KDUSF	5000	5.0	40	10.0	3.0	3.0	60	2.0	B
3HVFWB15KDUSF	10000	5.0	40	20.0	2.75	2.75	60	2.0	B
3HVFWB10KEUSF	10000	5.0	40	20.0	3.0	3.0	60	2.5	B
3HVFWB15KEUSF	15000	5.0	40	30.0	2.75	2.75	60	2.5	B

\*1 Measured on discretes prior to assembly in reverse recovery circuit switching from 0.5A forward to 1.0A reverse current recovering to 0.25A reverse current.



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**MECHANICAL**

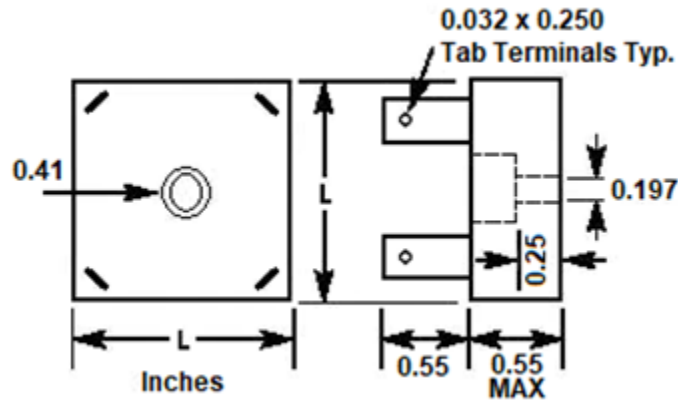


Figure A.

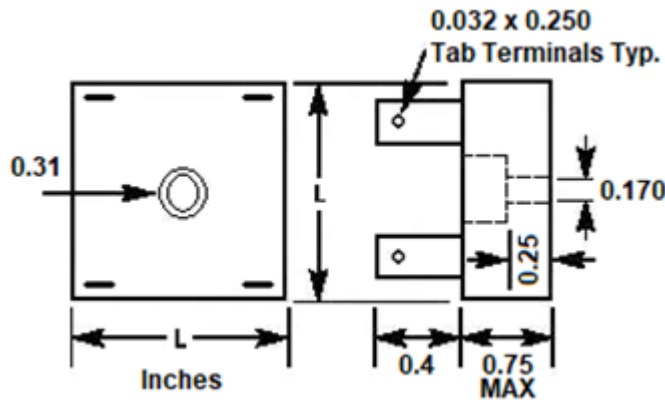


Figure B.

**THERMAL CHARACTERISTICS**

Operating and Storage Temperature.....-55°C to +150°C  
 Maximum Thermal Impedance (typical).....2.0 °C/W Junction to Case  
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