

## 35 AMP FASTRECOVER Y BRIDGERECTIFIERS

### FEATURES

- PRVRatingsfrom50to1000V olts
- Surgeoverloadratingto500 Ampspeak
- Reliablelowcostmoldedplasticconstruction
- Idealforprintedcircuitboardapplications
- Fastswitchingforhigh efficiency

**UL RECOGNIZED FILE # E124962**

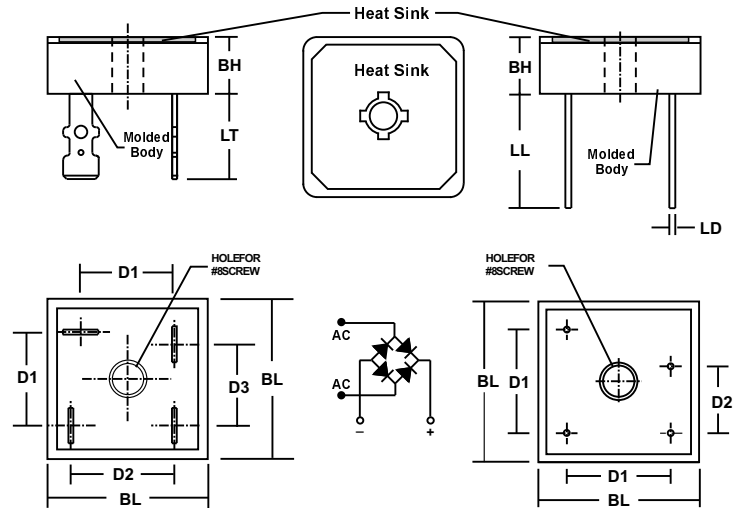
**RoHSCOMPLIANT**

### MECHANICAL DATA

- Case: Case:Moldedepoxywithintegralheatsink  
Epoxy carries UL Flammability rating of 94V-0
- Terminals: Roundsilverplatedcopperpinsorfast-onterminals
- Soldering: PerMIL-STD202Method208guaranteed
- Polarity: Marked on side of case
- Mounting Position: Any Through hole for #8 screw  
Max mounting torque = 20 in-lb.
- Weight: Fast-on Terminals 0.70 ounces (20.0 Grams)  
Wire Leads 0.55 ounces (16.0 Grams)

### MECHANICAL SPECIFICATION

#### SERIES FDB3500P FDB3510P



SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
BL	28.4	28.7	1.12	1.13
BH	9.6	9.8	0.38	0.39
D1	15.7	16.7	0.62	0.66
D2	17.5	18.5	0.69	0.73
D3	13.5	14.5	0.53	0.57
LT	n/a	15.2	n/a	0.6

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	MIN	MAX	MIN	MAX
BL	28.4	28.7	1.12	1.13
BH	9.6	9.8	0.38	0.39
D1	17.5	18.5	0.69	0.73
D2	10.9	11.9	0.43	0.47
LL	20.6	n/a	0.81	n/a
LD	1.0	1.1	0.039	0.042

Suffix "T" indicates FAST-ON TERMINALS

Suffix "W" indicates WIRE LEADS

### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

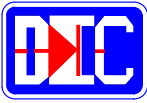
Ratings at 25 °C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive loads, derate current by 20%.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS								UNITS
		FDB 3500P	FDB 3501P	FDB 3502P	FDB 3504P	FDB 3506P	FDB 3508P	FDB 3510P		
Series Number										
Maximum DC Blocking Voltage	V <sub>RM</sub>	50	100	200	400	600	800	1000		VOLTS
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700		
Maximum Peak Recurrent Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000		
Average Forward Rectified Current @ T <sub>c</sub> = 75 °C	I <sub>O</sub>	35								AMPS
Peak Forward Surge Current (8.3ms single half sine wave superimposed on rated load) T <sub>J</sub> = 125 °C	I <sub>FSM</sub>	500								
Maximum Forward Voltage Per Diode at 17.5 Amps DC	V <sub>FM</sub>	1.3								VOLTS
Maximum Average DC Reverse Current at Rated DC Blocking Voltage Per Diode (Note 2)	I <sub>RM</sub>	10								μA
		1								mA
Maximum Reverse Recovery Time (Note 1)	T <sub>RR</sub>	200			300		500		nS	
Typical Thermal Resistance, Junction to Case (Note 2)	R <sub>θJC</sub>	1.2								°C/W
Junction Temperature Range	T <sub>J</sub>	-55 to +135								°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +135								

NOTES: (1) T<sub>J</sub> = 25 °C, I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1A, I<sub>RR</sub> = 0.25A

(2) Bridge mounted on an 9" x 3" x 4.6" thick (22.9cm x 7.6cm x 11.7cm) finned aluminum plate

3.01 3510 DP



## 35 AMP FAST RECOVERY BRIDGE RECTIFIERS

**RATING & CHARACTERISTIC CURVES**

**VESFOR SERIES FDB3500P**

**-FDB3510P**

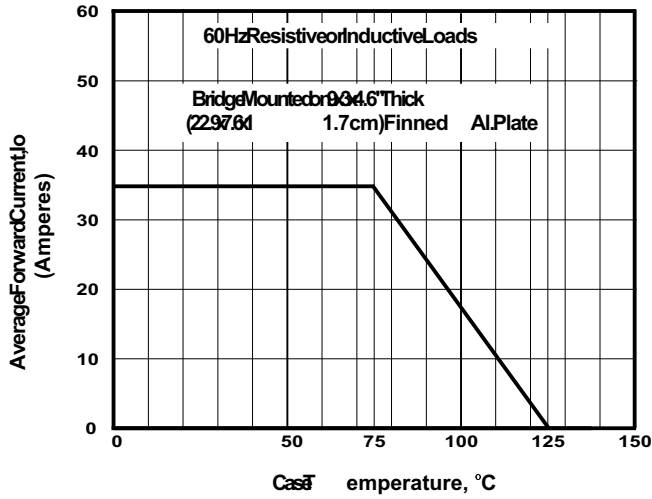


FIGURE 1 TYPICAL AVERAGE FORWARD CURRENT DERATING CURVE

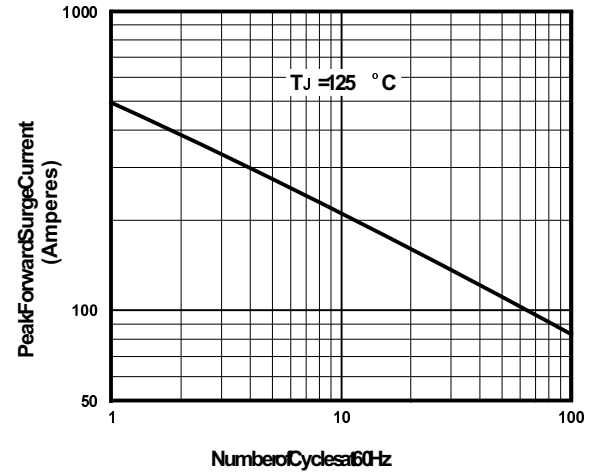


FIGURE 2 MAXIMUM NON-REPETITIVE SURGE CURRENT

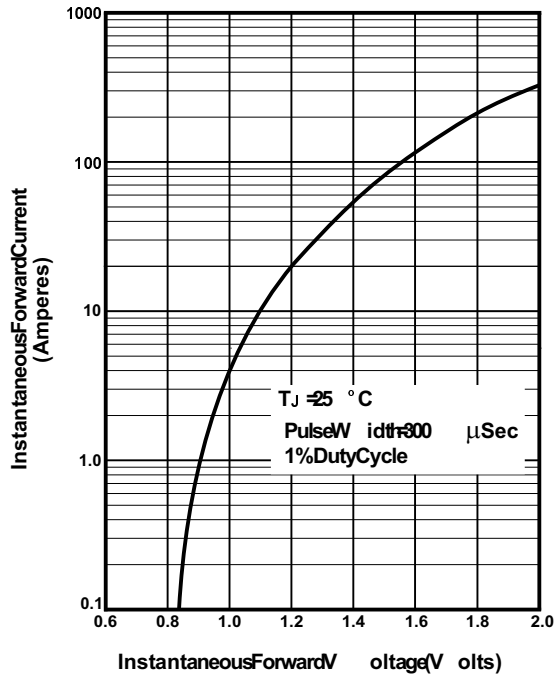


FIGURE 3 TYPICAL FORWARD CHARACTERISTIC PER DIODE

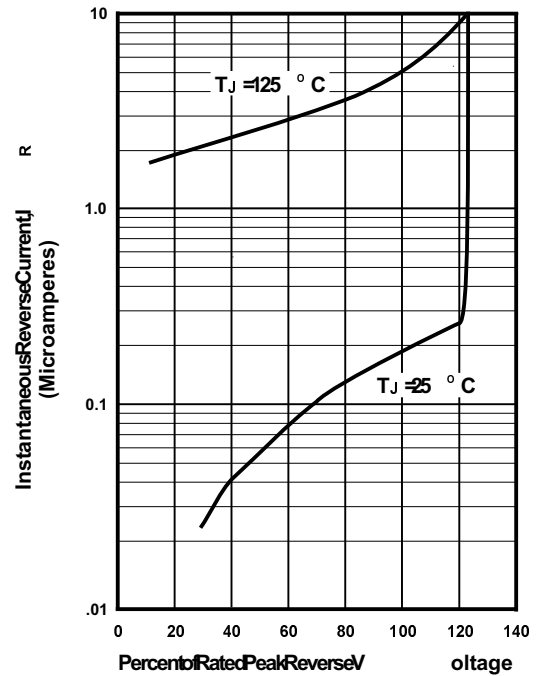


FIGURE 4 TYPICAL REVERSE CHARACTERISTICS