

DIOTEC ELECTRONICS CORP.
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Data Sheet No. FRDB-600-1B

6 AMP FAST RECOVERY BRIDGE RECTIFIERS

FEATURES

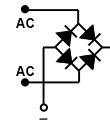
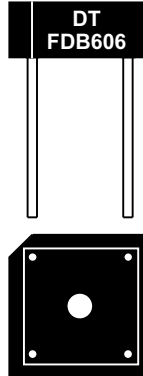
- PRV Ratings from 50 to 1000 Volts
- Surge overload rating to 250 Amps peak
- Reliable low cost molded plastic construction
- Ideal for printed circuit board applications
- Fast switching for high efficiency
- **UL RECOGNIZED - FILE #E124962**
- **RoHS COMPLIANT**

MECHANICAL DATA

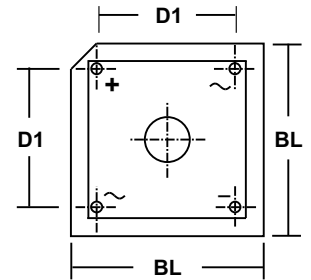
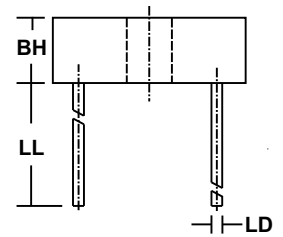
- Case: Molded Epoxy (UL Flammability Rating 94V-0)
- Terminals: Round silver plated copper pins
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on side of case; positive lead at beveled corner
- Mounting Position: Any. Through hole provided for #6 screw
- Weight: 0.13 Ounces (3.6 Grams)

MECHANICAL SPECIFICATION

ACTUAL SIZE OF
FDB PACKAGE



SERIES FDB600 - FDB610



SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
BL	14.7	15.7	0.58	0.62
BH	5.8	6.9	0.23	0.27
D1	10.3	11.3	0.405	0.445
LL	19.0	n/a	0.75	n/a
LD	1.0	1.1	0.039	0.042

MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS							UNITS
		FDB 600	FDB 601	FDB 602	FDB 604	FDB 606	FDB 608	FDB 610	
Series Number									
Maximum DC Blocking Voltage	V _{RM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	
Maximum Peak Recurrent Reverse Voltage	V _{R_{RM}}	50	100	200	400	600	800	1000	
Average Forward Rectified Current @ T _c = 50 °C	I _O	6							AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I _{FSM}	250							
Maximum Forward Voltage (Per bridge Element) at 3 Amps DC	V _{FM}	1.3							VOLTS
Maximum Average DC Reverse Current At Rated DC Blocking Voltage (Per Bridge Element-Note 2)	I _{RM}	10 1							μA mA
Maximum Reverse Recovery Time (Note 1)	T _{RR}	200		300		500		nS	
Thermal Energy (Rating for Fusing, t < 8.3 mS)	I ² t	60							AMPS ² SEC
Typical Thermal Resistance, Junction to Case (Note 2)	R _{θJC}	8							°C/W
Junction Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150							°C

NOTES: (1) T_J=25°C, I_F=0.5A, I_R=1A, I_{RR}=0.25A
 (2) Bridge mounted on 4.0" sq. x 0.11" thick (10.5cm sq. x 0.3cm) aluminum plate

3.01 06/06