

DIOTEC ELECTRONICS CORP.
18020 Hobart Blvd., Unit B
Gardena, CA 90248 U.S.A
Tel.: (310) 767-1052 Fax: (310) 767-7958

Data Sheet No. FRDI-100-1B

1 AMP FAST RECOVERY BRIDGE RECTIFIERS

FEATURES

- PRV Ratings from 50 to 1000 Volts
- Surge overload rating to 50 Amps peak
- Reliable low cost molded plastic construction
- Ideal for printed circuit board applications
- Fast switching for high efficiency

- **UL RECOGNIZED - FILE #E124962**

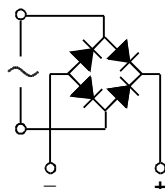
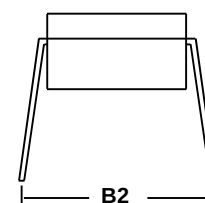
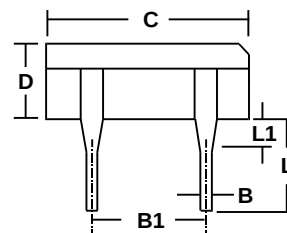
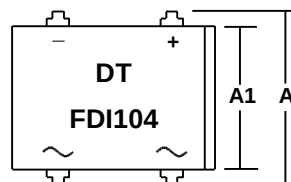
MECHANICAL DATA

- Case: Molded plastic, U/L Flammability Rating 94V-0
- Terminals: Rectangular pins
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on case
- Mounting Position: Any
- Weight: 0.05 Ounces (1.3 Grams)

MECHANICAL SPECIFICATION

ACTUAL SIZE OF
THE FDI PACKAGE

SERIES FDI100 - FDI110



Sym	Minimum		Maximum	
	in	mm	in	mm
A	0.290	7.4	0.310	8.9
A1	0.245	6.2	0.255	6.5
B	0.016	0.41	0.020	0.51
B1	0.195	5.0	0.205	5.2
B2	0.300	7.6	0.350	8.9
C	0.355	9.3	0.365	9.3
D	0.125	3.2	0.135	3.4
L	0.155	3.9	0.165	4.3
L1	0.060*	1.5*		

* This dimension is "Typical".

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
Series Number		FDI 100	FDI 101	FDI 102	FDI 104	FDI 106	FDI 108	FDI 110	
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 _{RRM}	50	100	200	400	600	800	1000	
Average Forward Rectified Current @ T _A = 40 °C	I _O	1							AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I _{FSM}	50							
Maximum Forward Voltage at 1 Amp DC	V _{FM}	1.3							VOLTS
Maximum Average DC Reverse Current @ T _A = 25 °C At Rated DC Blocking Voltage @ T _A = 100 °C	I _{RM}	10 1							μA mA
Maximum Reverse Recovery Time (Note 1) @ T _J = 25 °C	T _{RR}	200			300		500		nS
Maximum Thermal Resistance, Junction to Ambient (Note 2)	R _{θJA}	40							°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) Thermal resistance from junction to ambient with bridge mounted on PC Board with 0.5" sq. (13mm sq.) copper pads

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