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. BRDI-100-1B

1 AMP MINIATURE 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
- **UL RECOGNIZED - FILE #E124962**

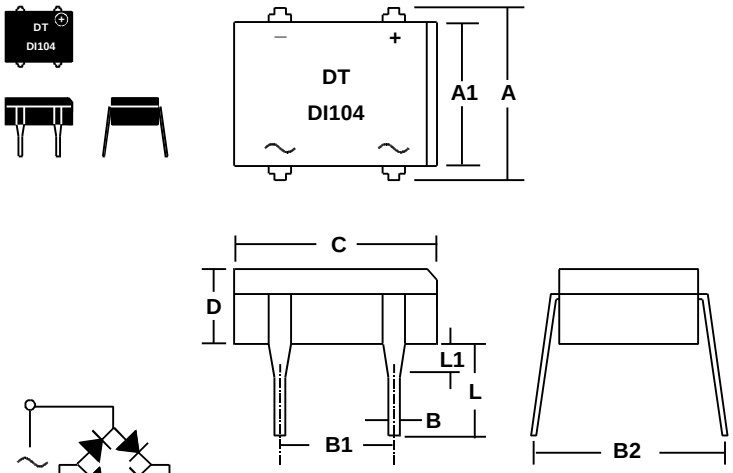
MECHANICAL DATA

- 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 DI PACKAGE

SERIES DI100 - DI110



Sym	Minimum		Maximum	
	in	mm	in	mm
A	0.290	7.4	0.310	7.9
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		DI100	DI101	DI102	DI104	DI106	DI108	DI110	
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 (Per Diode) at 1 Amp DC	V_{FM}	1.1							VOLTS
Maximum Average DC Reverse Current @ T_A = 25 °C At Rated DC Blocking Voltage @ T_A = 100 °C	I_{RM}	5.0 0.5							µA mA
Maximum Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	40							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

NOTES: (1) Thermal resistance from junction to ambient with bridge mounted on PC Board with 0.5x0.5 in copper pads

4.97fbrdi100

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RATING & CHARACTERISTIC CURVES FOR SERIES DI100 - DI110

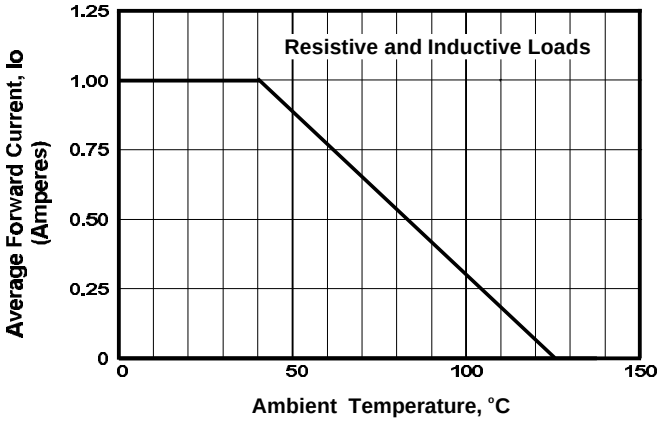

FIGURE 1. FORWARD CURRENT DERATING CURVE

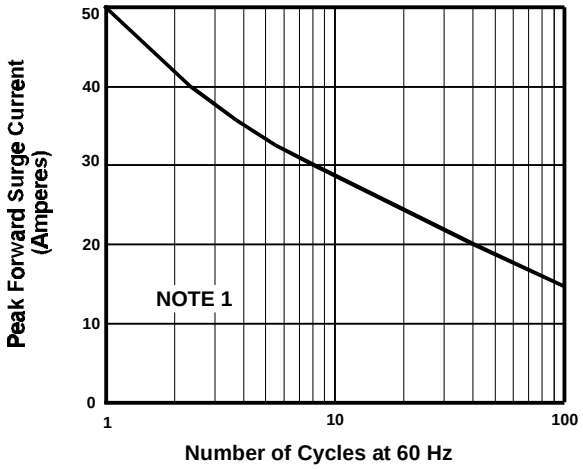

FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

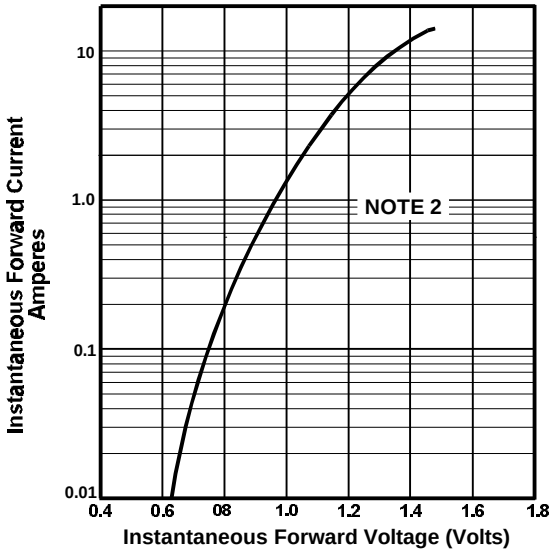

FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE

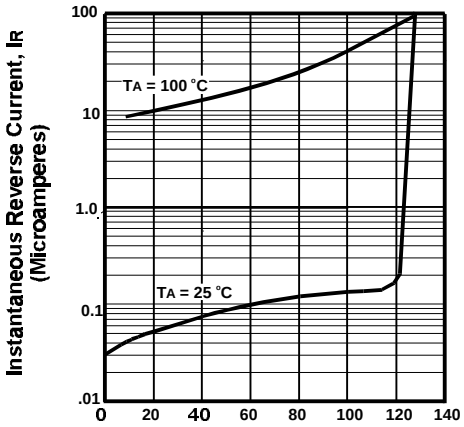

FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

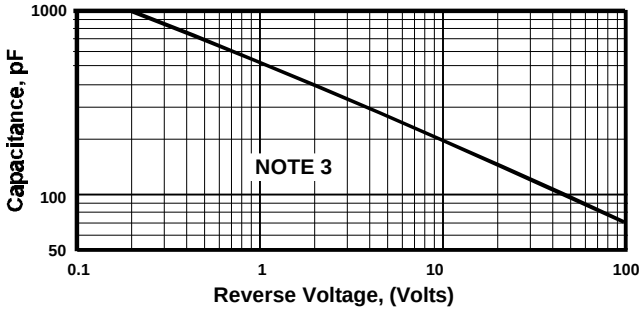

FIGURE 5. TYPICAL JUNCTION CAPACITANCE PER DIODE

NOTES

(1) JEDEC Method, 8.3 mSec. Single Half Sine Wave; T_J = 150 °C

(2) T_J = 25 °C; Pulse Width = 300 μSec, 1% Duty Cycle

(3) T_J = 25 °C; f = 1 MHz