

10 AMP SILICON BRIDGE RECTIFIERS

FEATURES

- PRV Ratings from 50 to 1000 Volts
- Surge overload rating to 150 Amps peak
- Reliable low cost molded plastic construction
- Ideal for printed circuit board applications

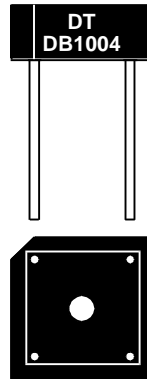
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MECHANICAL DATA

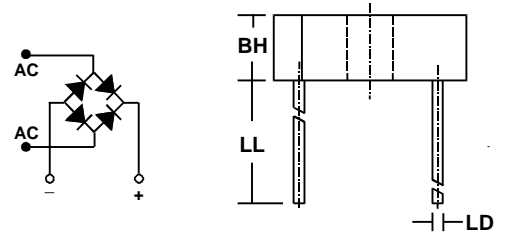
- Case: Molded plastic, U/L Flammability Rating 94V-0
- Terminals: Round silver plated copper pins
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on side of case; positive lead at beveled corner
- Mounting Position: Any. Through hole provided for #6 screw
- Weight: 0.18 Ounces (5.4 Grams)

MECHANICAL SPECIFICATION

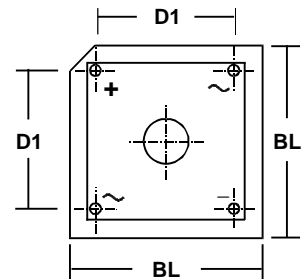
ACTUAL SIZE



SERIES DB1000-DB1010 and ADB1004-ADB1008



SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
BL	18.5	19.6	0.73	0.77
BH	6.4	7.6	0.25	0.3
D1	12.2	13.2	0.48	0.52
LL	22.2	n/a	0.875	n/a
LD	1.2	1.3	0.048	0.052



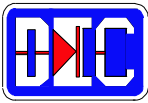
MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

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
		CONTROLLED AVALANCHE			NON-CONTROLLED AVALANCHE							
		ADB 1004	ADB 1006	ADB 1008	DB 1000	DB 1001	DB 1002	DB 1004	DB 1006	DB 1008	DB 1010	
Series Number												
Maximum DC Blocking Voltage	V _{RM}	400	600	800	50	100	200	400	600	800	1000	VOLTS
Working Peak Reverse Voltage	V _{RWM}											
Maximum Peak Recurrent Reverse Voltage	V _{RRM}											
RMS Reverse Voltage	V _R (RMS)	280	420	560	35	70	140	280	420	560	700	
Power Dissipation in V _(BR) Region for 100 μS Square Wave	P _{RM}	500			n/a							WATTS
Continuous Power Dissipation in V _(BR) Region @ T _{HS} =80°C (Heat Sink Temp)	P _R	2			n/a							
Thermal Energy (Rating for Fusing)	I ² t	64										AMPS ² SEC
Peak Forward Surge Current (8.3 mSec single half sine wave superimposed on rated load)	I _{FSM}	150										AMPS
Average Forward Rectified Current @ T _C = 50°C (Note 1) @ T _C = 100°C (Note 1); T _A = 50°C (Note 2)	I _O	10 8										
Junction Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150										°C
Minimum Avalanche Voltage	V _(BR) Min	450	650	850	n/a							VOLTS
Maximum Avalanche Voltage	V _(BR) Max	900	1100	1300	n/a							
Maximum Forward Voltage (Per Diode) at 5 Amps DC	V _{FM}	1.1										
Maximum Reverse Current at Rated V _{RM} @ T _A = 25°C @ T _A = 100°C	I _{RM}	5 1										μA mA
Minimum Insulation Breakdown Voltage (Circuit to Case)	V _{ISO}	2000										VOLTS
Typical Thermal Resistance (on Heat Sink) Junction to Ambient Junction to Case	R _{θJA} R _{θJC}	2.5 5.0										°C/W

NOTES: (1) Unit Mounted on Metal Chassis
 (2) Unit Mounted on PC Board

4.971brdb010



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RATING & CHARACTERISTIC CURVES FOR SERIES DB1000 - DB1010 and SERIES ADB1004 - ADB1008

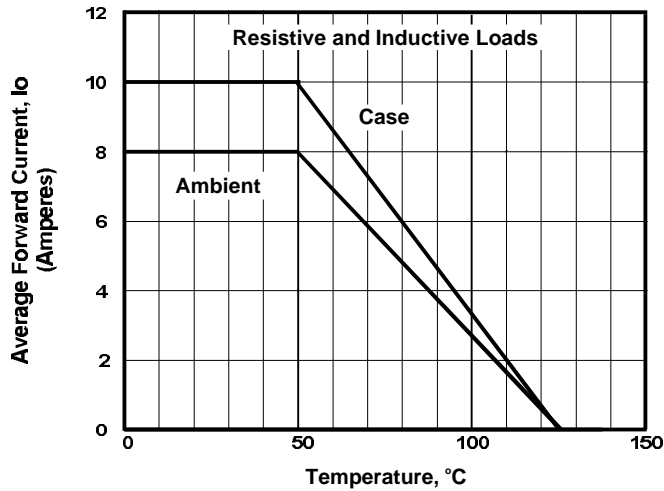


FIGURE 1. FORWARD CURRENT DERATING CURVE

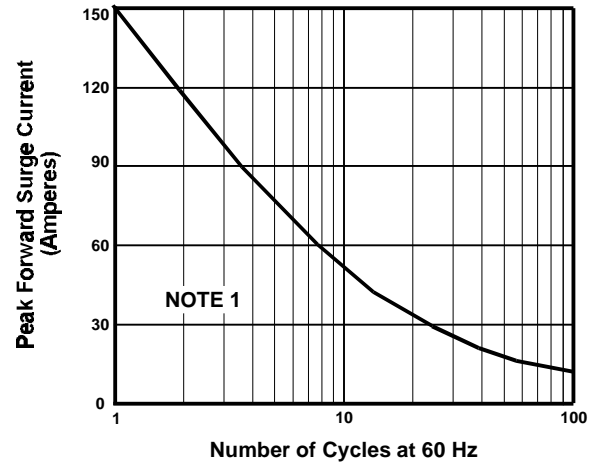


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

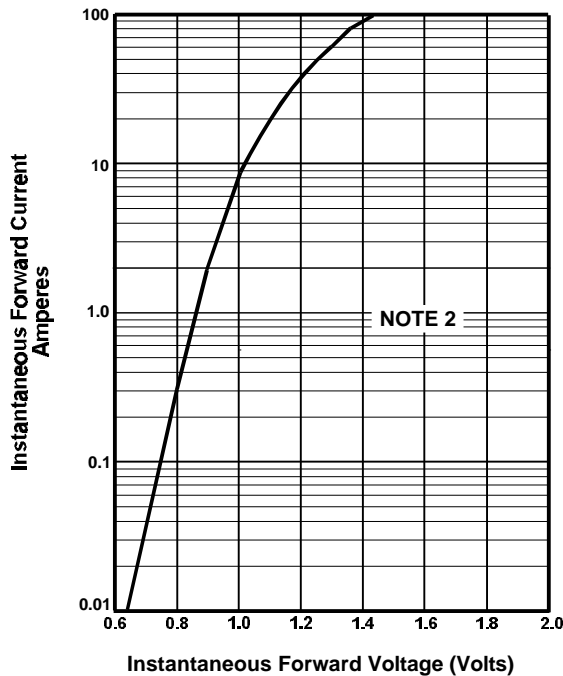


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE

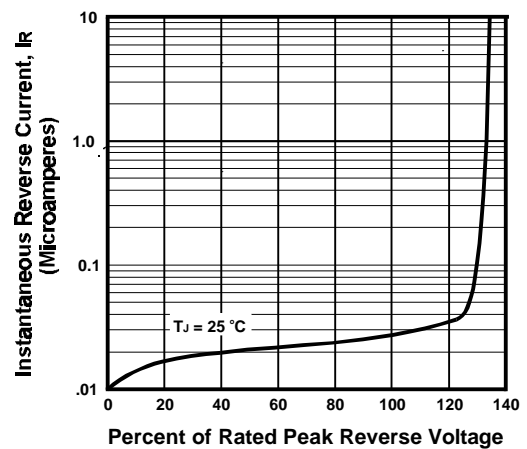


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

NOTES

- (1) JEDEC Method, 8.3 mSec. Single Half Sine Wave; $T_J = 125^\circ\text{C}$
- (2) $T_J = 25^\circ\text{C}$; Pulse Width = 300 μSec