



6 AMP SILICON BRIDGE RECTIFIERS

FEATURES

- PRV Ratings from 50 to 1000 Volts
- Surge overload rating to 125 Amps peak
- Reliable low cost molded plastic construction
- Ideal for printed circuit board applications

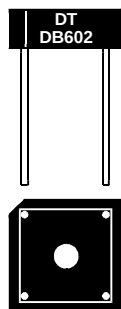
- **UL RECOGNIZED - FILE #E124962**

MECHANICAL DATA

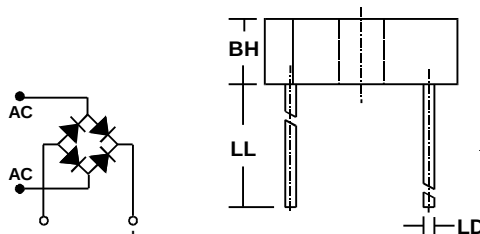
- Case: Molded plastic, U/L Flammability Rating 94V-0
- Terminals: Round silver plated copper pins
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on side of case; positive lead at beveled corner
- Mounting Position: Any. Through hole provided for #6 screw
- Weight: 0.13 Ounces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

MECHANICAL SPECIFICATION

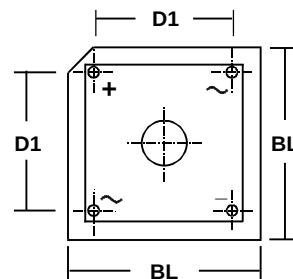
ACTUAL SIZE



SERIES DB600 - DB610 and ADB604 - ADB608



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

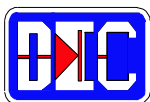


MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
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							
Series Number		ADB 604	ADB 606	ADB 608	DB 600	DB 601	DB 602	DB 604	DB 606	DB 608	DB 610	
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}	400			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	60										AMPS ² SEC
Peak Forward Surge Current (8.3 mSec single half sine wave superimposed on rated load)	I _{FSM}	125										AMPS
Average Forward Rectified Current @ T _C = 50 °C (Note 1) @ T _A = 40 °C (Note 2)	I _O	6 3										
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 3 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 5.5" x 6.0" x 0.11" thick (14 x 15 x 0.3 cm) Aluminum plate
(2) Unit mounted on PC Board with 0.375" (9.5 mm) lead length and 0.5" x 0.5" (12 x 12 mm) copper pads



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RATING & CHARACTERISTIC CURVES FOR SERIES DB600 - DB610 and SERIES ADB604 - ADB608

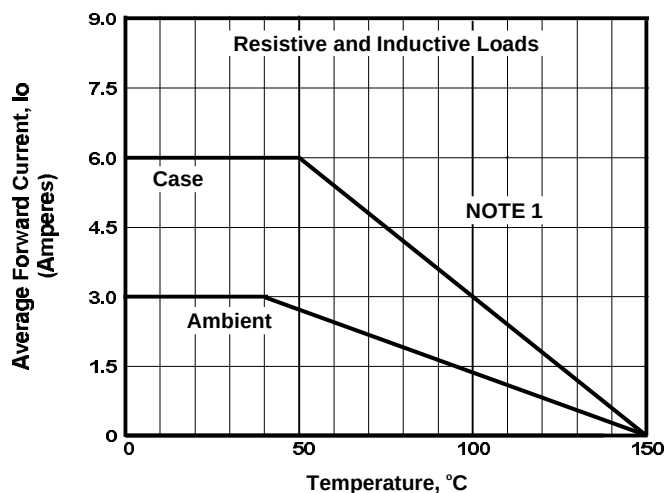


FIGURE 1. FORWARD CURRENT DERATING CURVE

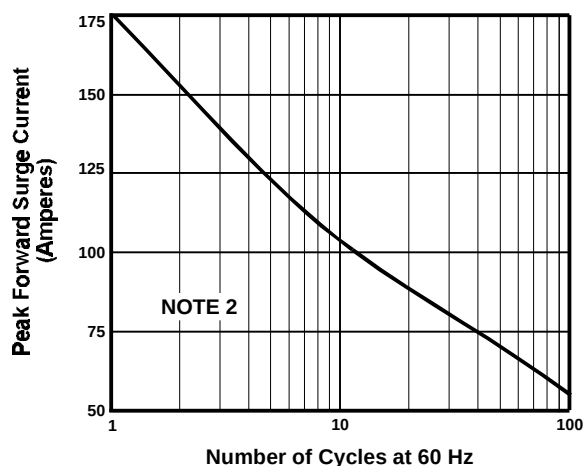


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

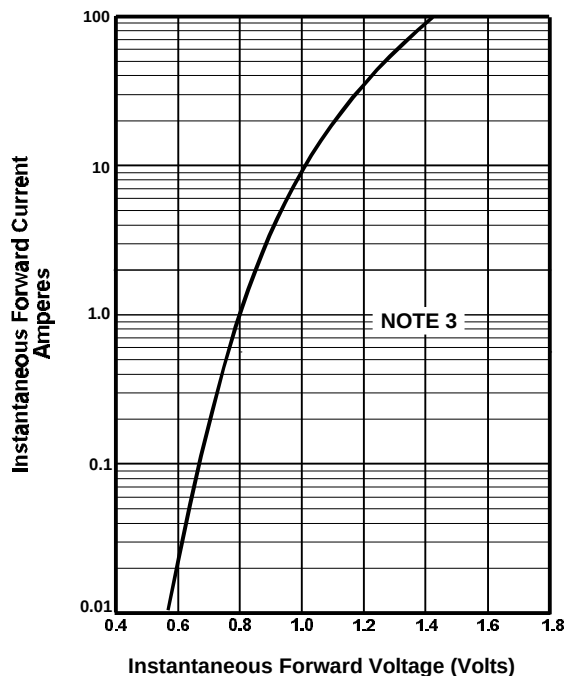


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE

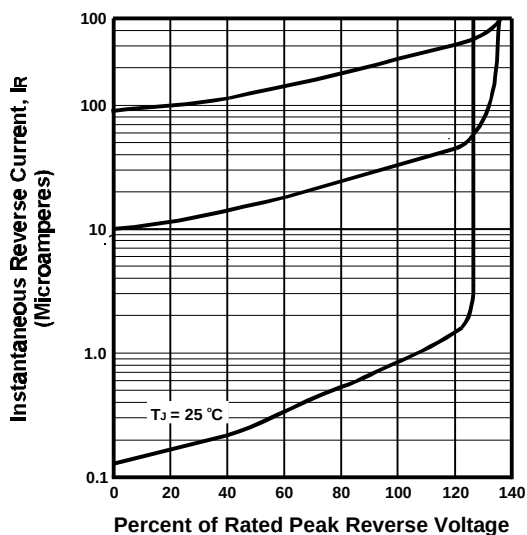


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS PER DIODE

NOTES

- (1) Ambient = Ambient temperature, TA. P.C. Board mounting with 0.375" (9.5 mm) Lead lengths
Case = Case Temperature, TC. Mounted on aluminum plate 5.5" x 6.0" x 0.11" thick (14 x 15 x 0.3 cm)
- (2) JEDEC Method, 8.3 mSec. Single Half Sine Wave; Tj = 150 °C
- (3) Tj = 25 °C; Pulse Width = 300 µSec