

4 AMP SILICON BRIDGE RECTIFIERS

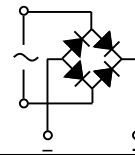
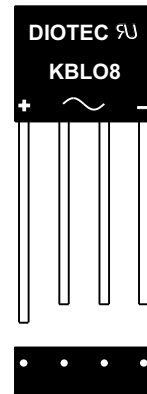
FEATURES

- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical < 2%, Max. < 10% of Die Area)
- BUILT-IN STRESS RELIEF MECHANISM FOR SUPERIOR RELIABILITY AND PERFORMANCE
- SURGE OVERLOAD RATING TO 200 AMPS PEAK
- IDEAL FOR PRINTED CIRCUIT BOARD APPLICATIONS
- **UL RECOGNIZED - FILE #E141956**
- **RoHS COMPLIANT**

MECHANICAL DATA

- Case: Molded Epoxy (UL Flammability Rating 94V-0)
- Terminals: Round silver plated pins
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on case
- Mounting Position: Any
- Weight: 0.2 Ounces (5.6 Grams)

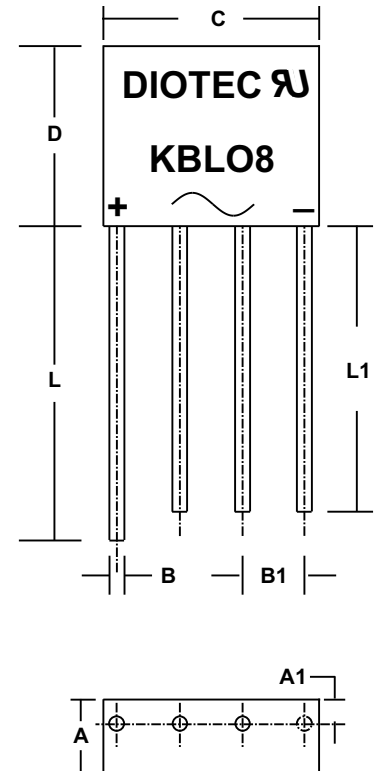
ACTUAL SIZE OF KBL PACKAGE



SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	6.22	6.48	0.245	0.255
A1	2.05	2.18	0.081	0.085
B	1.22	1.32	0.048	0.052
B1	4.57	5.59	0.180	0.220
C	18.92	19.80	0.745	0.755
D	15.75	16.00	0.620	0.630
L	27.94	n/a	1.10	n/a
L1	25.4	n/a	1.00	n/a

MECHANICAL SPECIFICATION

SERIES KBL00 - KBL10



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
		KBL 00	KBL 01	KBL 02	KBL 04	KBL 06	KBL 08	KBL 10		
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 _{RRM}	50	100	200	400	600	800	1000		
Average Forward Rectified Current @ T _A = 65 °C	I _O	4								AMPS
Peak Forward Surge Current. Single 60Hz Half-Sine Wave Superimposed on Rated Load (JEDEC Method). T _J = 150 °C	I _{FSM}	200								
Maximum Forward Voltage (Per Diode) at 4 Amps DC	V _{FM}	0.95 (Typical < 0.90)								VOLTS
Maximum Average DC Reverse Current @ T _A = 25 °C At Rated DC Blocking Voltage @ T _A = 125 °C	I _{RM}	1 50								μA
Typical Thermal Resistance Junction to Lead (Note 1)	R _{θJA} R _{θJL}	19.0 2.4								°C/W
Minimum Insulation Breakdown Voltage (Circuit to Case)	V _{ISO}	2500								VOLTS
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150								°C

NOTES: (1) Bridge mounted on PC Board with 0.5" sq. (12mm sq.) copper pads and a lead length of 0.375" (9.5mm).

3.01 04/01



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RATING & CHARACTERISTIC CURVES FOR SERIES KBL00 - KBL10

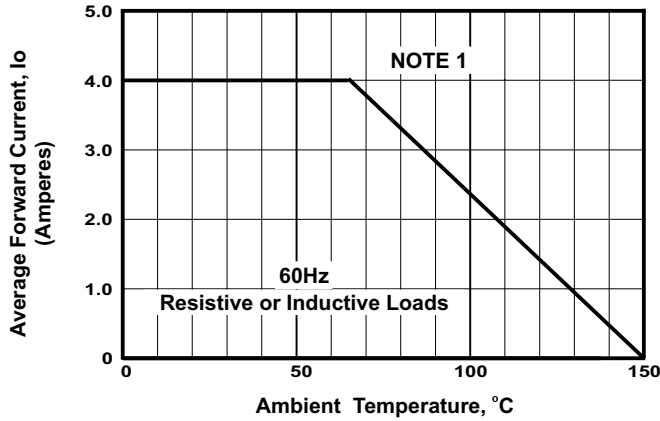


FIGURE 1. FORWARD CURRENT DERATING CURVE

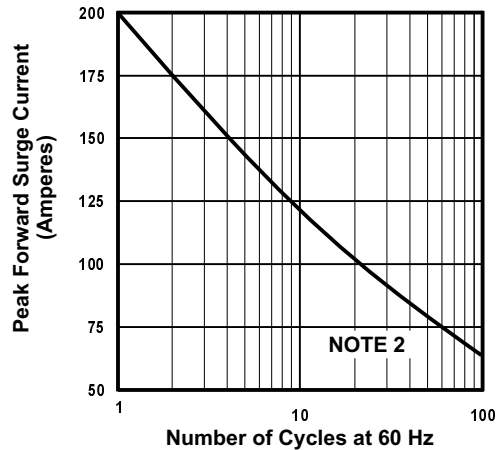


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

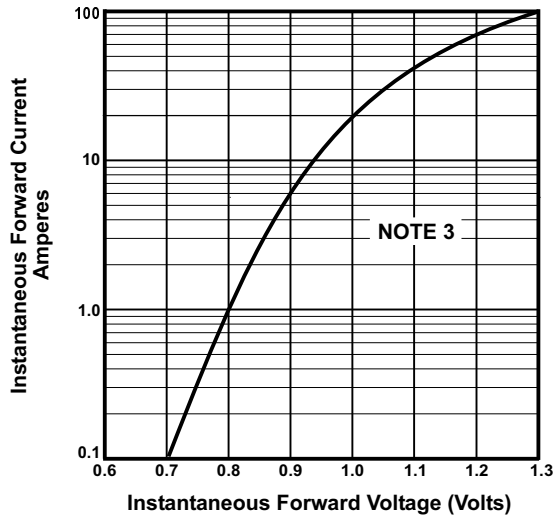


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE

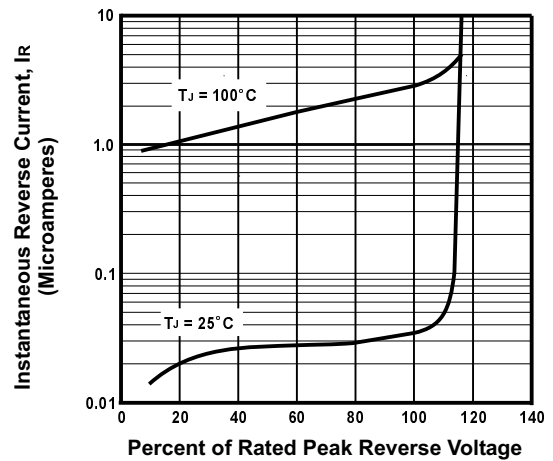


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

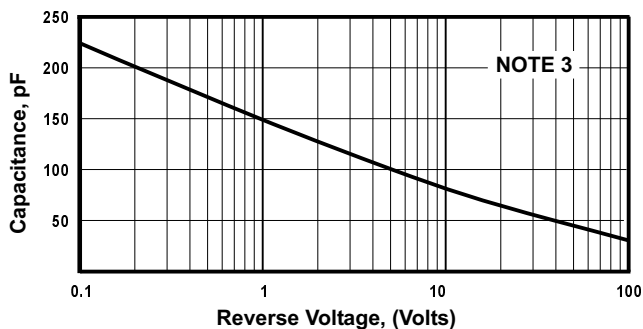


FIGURE 5. TYPICAL JUNCTION CAPACITANCE PER DIODE

NOTES

- (1) Bridge Mounted on 3.0" Sq. x 0.11" Thick (7.5cm Sq. x 0.15cm) Aluminum Plate
- (2) $T_J = 150^\circ \text{C}$
- (3) $T_J = 25^\circ \text{C}$; Pulse Width = 300 Sec; 1%Duty Cycle
- (4) $T_J = 25^\circ \text{C}$; $f = 1 \text{ MHz}$; $V_{sig} = 50\text{mVp-p}$