

4 AMP SILICON BRIDGE RECTIFIERS

FEATURES

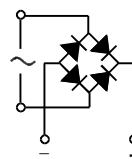
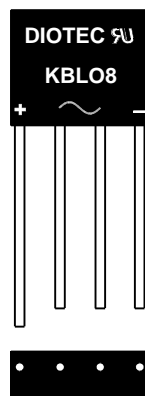
- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical < 2%, Max. < 10% of Die Area)
- BUILT-IN STRESS RELIEF MECHANISM FOR SUPERIOR RELIABILITY AND PERFORMANCE
- SURGE OVERLOAD RATING TO 200 AMPS PEAK
- IDEAL FOR PRINTED CIRCUIT BOARD APPLICATIONS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

MECHANICAL DATA

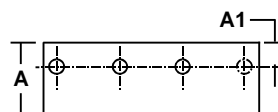
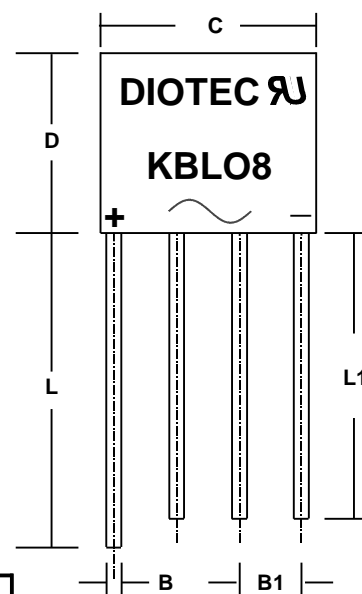
- Case: Molded plastic, U/L Flammability Rating 94V-0
- Terminals: Round silver plated pins
- Soldering: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Marked on case
- Mounting Position: Any
- Weight: 0.2 Ounces (5.6 Grams)

MECHANICAL SPECIFICATION

ACTUAL SIZE OF
KBL PACKAGE



SERIES KBL00 - KBL10



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

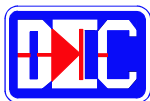
MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

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		KBL 00	KBL 01	KBL 02	KBL 04	KBL 06	KBL 08	KBL 10		
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	I _{RM}	5								μA
At Rated DC Blocking Voltage @ T _A = 100° C		1								mA
Typical Thermal Resistance Junction to Ambient (Note 1)	R _{θJA}	19.0								°C/W

NOTES: (1) Bridge mounted on 3.0" sq. x 0.11" thick (7.5cm sq. x 0.3cm) aluminum plate.
(2) Bridge mounted on PC Board with 0.5" sq. (12mm sq.) copper pads and a lead length of 0.375" (9.5mm).

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RATING & CHARACTERISTIC CURVES FOR SERIES KBL00 - KBL10

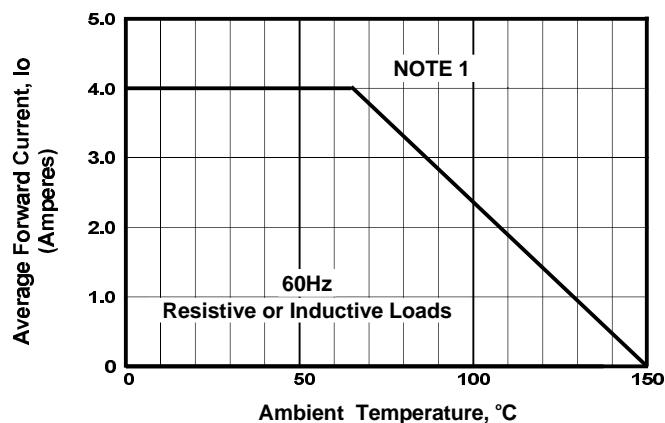


FIGURE 1. FORWARD CURRENT DERATING CURVE

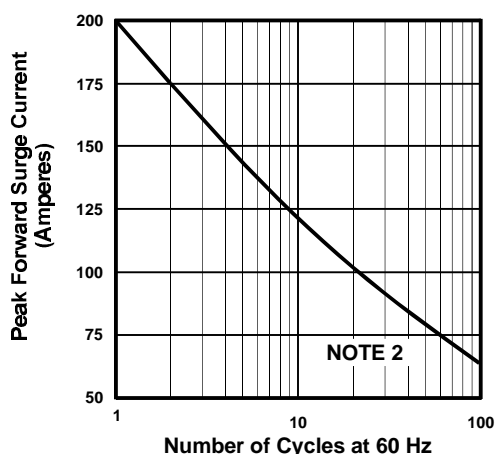


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

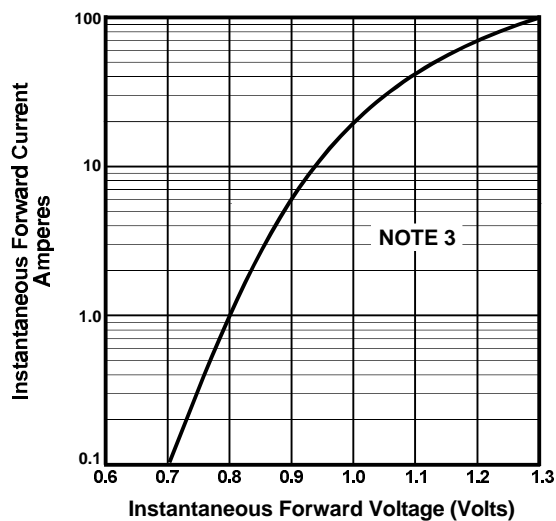


FIGURE 3. TYPICAL FORWARD CHARACTERISTIC PER DIODE

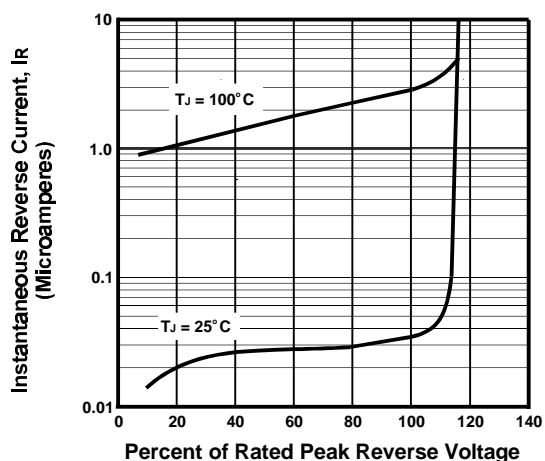


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

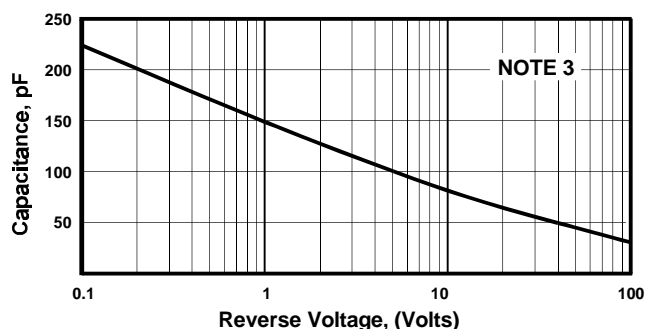


FIGURE 5. TYPICAL JUNCTION CAPACITANCE PER DIODE

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 μSec ; 1%Duty Cycle
- (4) $T_J = 25^\circ\text{C}$; $f = 1\text{ MHz}$; $V_{\text{sig}} = 50\text{mVp-p}$