

Single-phase Silicon Bridge Rectifier – KBL Package

KBL4005 to KBL410

MERITEK

FEATURE

- Surge overload rating: 150 amperes peak
- Reserve Voltage from 50 to 1000V
- Forward Current: 4.0A
- Flammability Classification 94V-0
- Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
- UL/cUL safety approved: certification No: E223027



ELECTRICAL CHARACTERISTICS

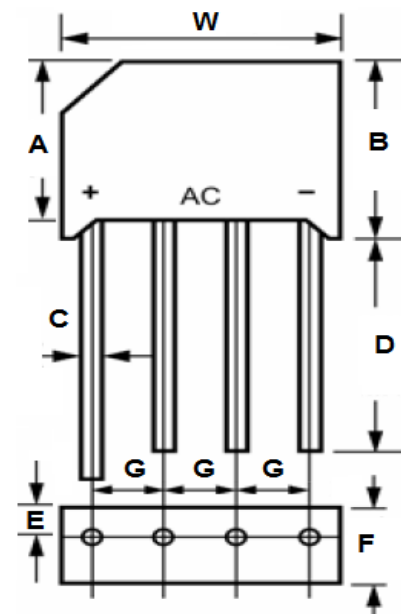


Parameter	Symbols	KBL 4005	KBL 401	KBL 402	KBL 404	KBL 406	KBL 408	KBL 410	Units
Maximum Recerrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_C=100^{\circ}C$	$I_{(AV)}$	4.0							A
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150.0							A
Maximum Forward Voltage at 4.0A DC and $25^{\circ}C$	V_F	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage	I_R	10.0 at $T_A=25^{\circ}C$, 500 at $T_A=100^{\circ}C$							μA
Typical Junction Capacitance applied reverse voltage of 4.0 VDC at 1 MHZ	C_J	40							pF
Typical Thermal Resistance, Thermal resistance from junction to ambient with units mounted on 3.0 x 3.0 x 0.11" Al. plate.	$R_{\theta JA}$	19							$^{\circ}C / W$
Typical Thermal Resistance, Thermal resistance from junction to lead with units mounted on P.C.B. at 0.375" (9.5mm) lead length and 0.5 x 0.5" (12 x 12mm) copper pads	$R_{\theta JL}$	2.4							$^{\circ}C / W$
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to +125							$^{\circ}C$

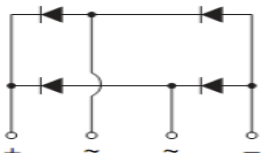
Rating at $25^{\circ}C$, ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

DIEMSIONS

Item	Milimeters	
	Min.	Max.
W	18.5	19.5
A	13.7	14.7
B	15.2	16.3
C	1.2	1.3
D	19.0	-
E	2.1	-
F	6.0	6.5
G	4.6	5.6



FUNCTIONAL DIAGRAM



CHARACTERISTICS CURVES

Fig.1 Maximum Non-Repetitive Forward Surge Current

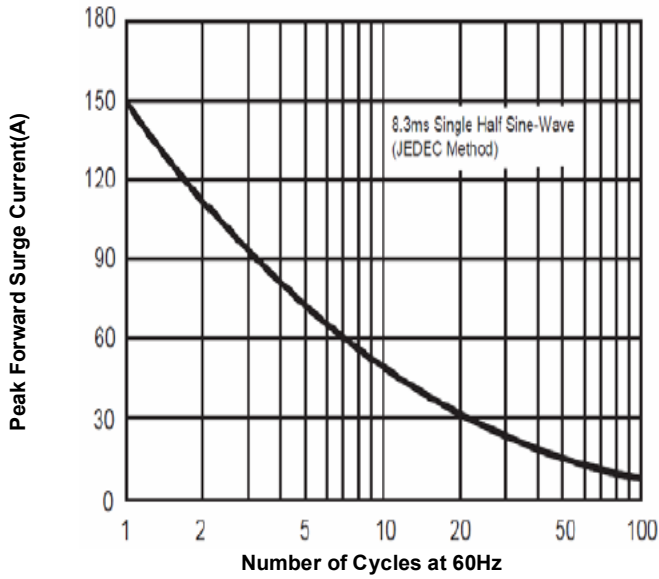


Fig 2. Maximum Non-Repetitive Surge Current Per Leg

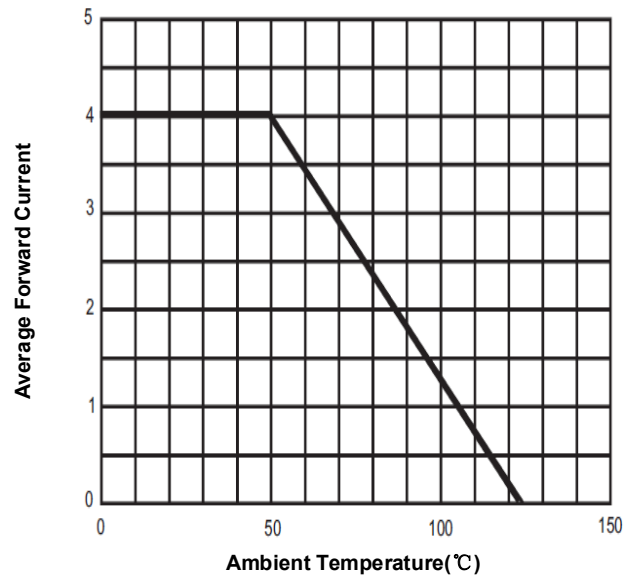


Fig 3. Typical Instantaneous Forward Characteristics per Bridge Element

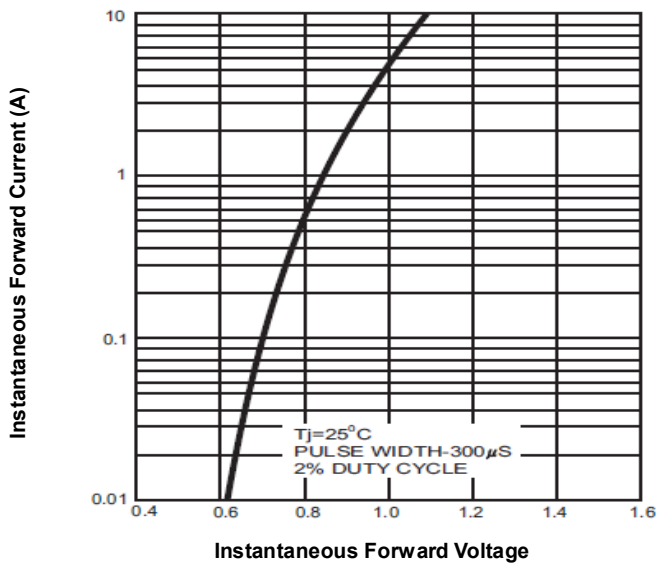


Fig 4. Typical Reverse Characteristics Per leg

