KBL4005 THRU KBL410

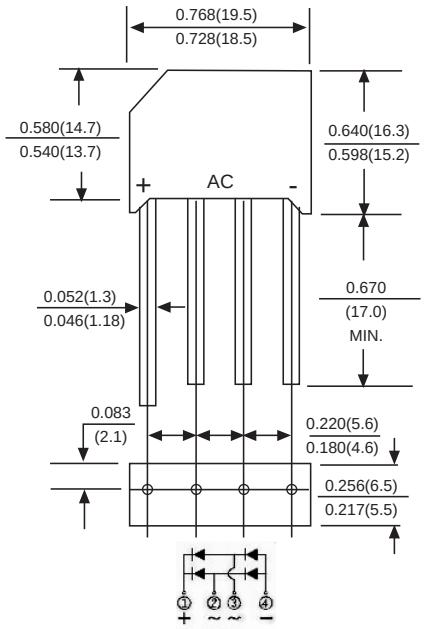
Reverse Voltage - 50 to 1000 V olts Forward Current - 4.0 Amperes

SILICON BRIDGE RECTIFIERS

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Ideal for printed circuit boards
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds,0.375”(9.5mm) lead length, 5 lbs. (2.3kg) tension

KBL RoHS COMPLIANT



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC KBL Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.22 ounce , 6.21 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unlss otherwise specified.

Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

Parameter / Marking Code	SYMBOLS	MDD KBL4005	MDD KBL401	MDD KBL402	MDD KBL404	MDD KBL406	MDD KBL408	MDD KBL410	UNITS
Maximum repetitive 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 output rectified current at T_A=50°C	$I_{(AV)}$	4.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200							A
Rating for Fusing(t<8.3ms)	I^2t	166							A^2s
Maximum instantaneous forward voltage drop per birdge element at 4.0A	V_F	1.1							V
Maximum DC reverse current T_A=25°C	I_R	10							μA
at rated DC blocking voltage T_A=100°C		1.0							mA
Typical Junction Capacitance	C_J	105							pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	10							°C/W
Operating junction temperature range	T_J	-55 to +150							°C
storage temperature range	T_{STG}	-55 to +150							°C

NOTES:
1.Thermal resistance from Junction to Ambemt on P.C.board mounting.

Ratings And Characteristic Curves

Fig. 1 Derating Curve for Output Rectified Current

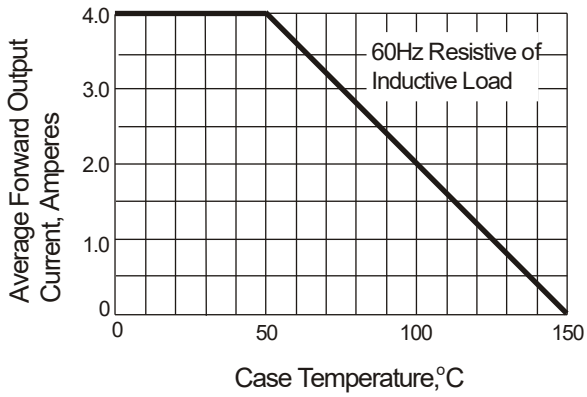


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

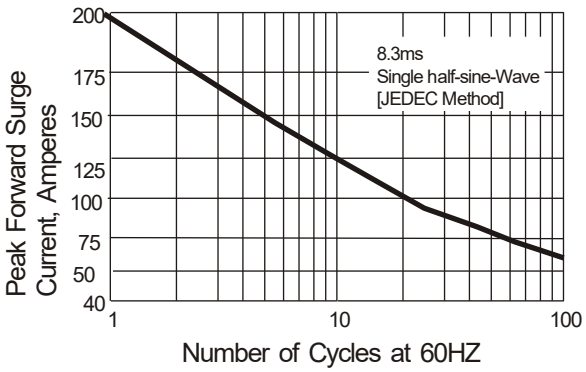


Fig. 3 Typical Instantaneous Forward Characteristics

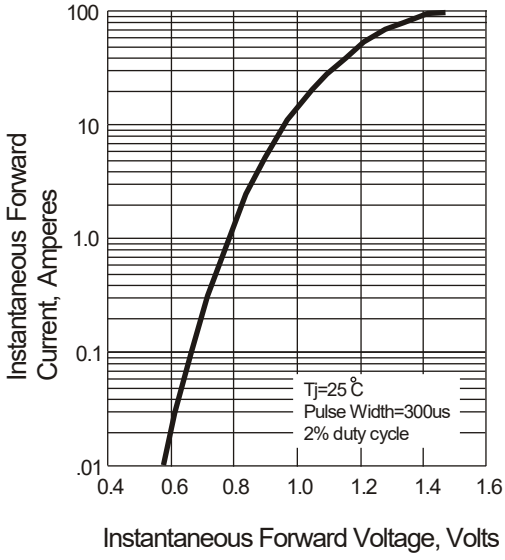


Fig. 4 Typical Reverse Characteristics at Tj=25 ℃

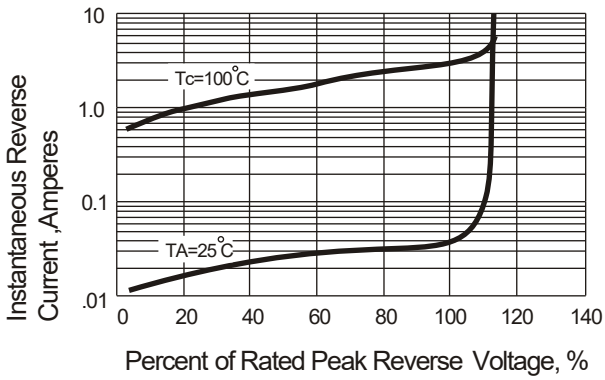
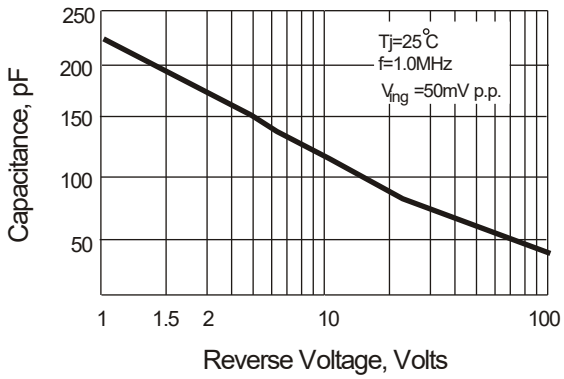


Fig. 5 Typical Junction Capacitance



The curve above is for reference only.