Silicon Bridge Rectifiers

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KBL400 Thru KBL410

Reverse Voltage: 50 - 1000 Volts
Forward Current: 4.0 Amp

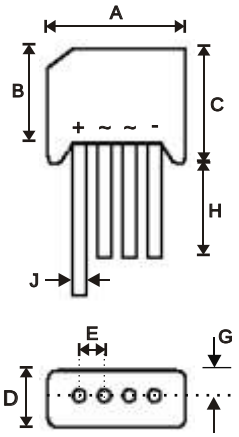
Features

- Diffused Junction
- Low Forward Voltage Drop
- High Reliability
- High Current Capability
- High Surge Current Capability
- Ideal for Printed Circuit Boards

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL STD-202, Method 208
- Weight: 5.6 grams (approx.)
- Mounting Position: Any

KBL



KBL		
Dim	**Min**	**Max**
A	18.50	19.50
B	13.70	14.70
C	15.20	16.30
D	6.00	6.50
E	4.60	5.60
G	-	2.10
H	19.00	-
J	1.20	1.30
All Dimensions in mm		

Maximum Ratings and Electrical Characterics Rating at 25°C unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

CHARACTERISTICS	Symbol	KBL 400	KBL 401	KBL 402	KBL 404	KBL 406	KBL 408	KBL 410	UNIT
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note1) @ T_A = 75°C	I_O	4							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A
Forward Voltage (per element) @I_F = 2.0A	V_{FM}	1.1							V
Peak Reverse Current @T_C = 25°C At Rated DC Blocking Voltage @T_C = 100°C	I_R	10 1.0							uA mA
I^2t Rating for Fusing (t < 8.3ms) (Note1)	I^2t	166							A^2s
Typical Thermal Resistance (Note2)	R_{JC}	19							K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125							°C

Note: 1. Non-repetitive for t > 1ms and < 8.3ms.
2. Thermal resistance junction to ambient mounted on PC board with 13.0 x 13.0 x 0.03mm thick land areas.

Rating and Characteristic Curves (KBL400 thru 410)

FIG.1- MAXIMUM NON-REPETITIVE PEAK Fwd SURGE CURRENT

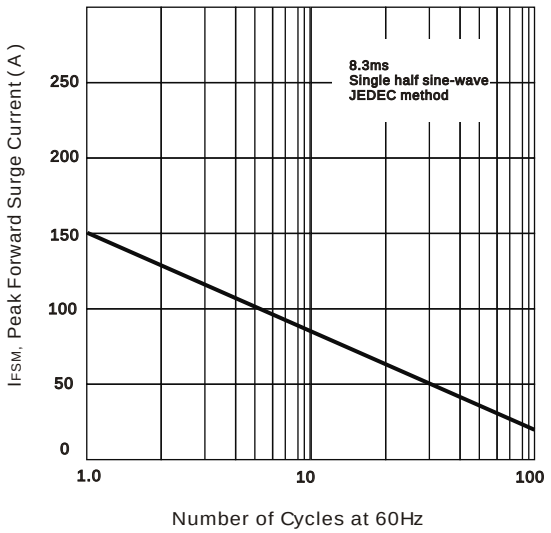


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

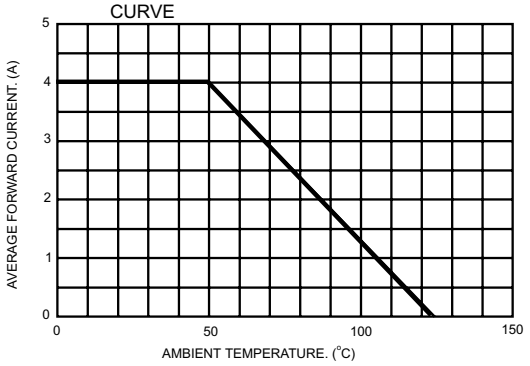


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

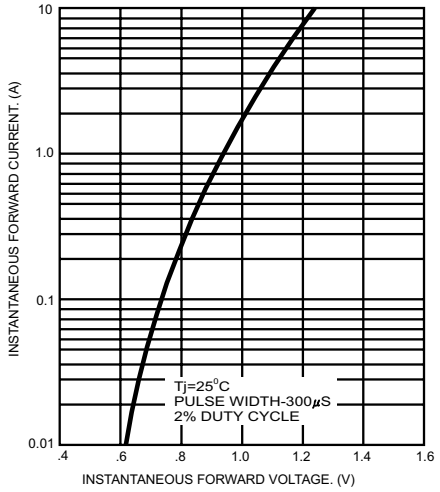


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT