

Silicon Bridge Rectifiers



KBL400-G thru KBL410-G

Reverse Voltage: 50 ~ 1000 Volts

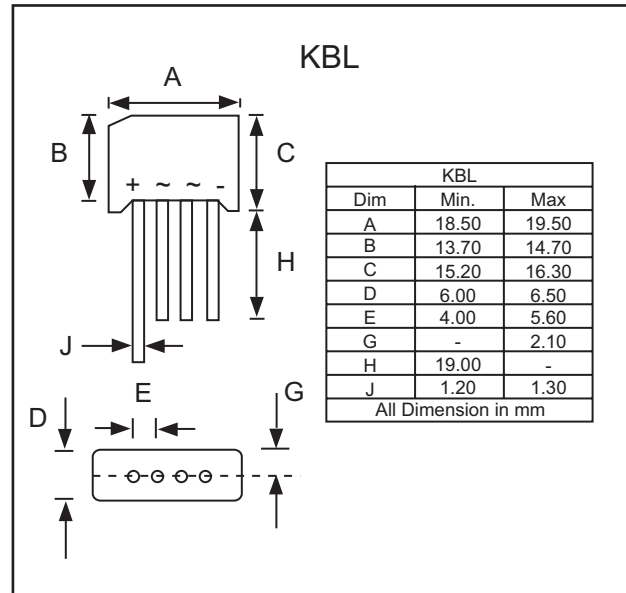
Forward Current: 4.0 Amp

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



Maximum Ratings and Electrical Characteristics

Rating at 25°C unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate currently by 20%.

Characteristics	Symbol	KBL 400-G	KBL 401-G	KBL 402-G	KBL 404-G	KBL 406-G	KBL 408-G	KBL 410-G	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}								
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V_R								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note1) @ $T_A = 75^\circ\text{C}$	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) @ $I_F=2.0\text{A}$	V_{FM}	1.1							V
Peak Reverse Current @ $T_C=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C=100^\circ\text{C}$	I_R	10 1.0							μA mA
I^2t Rating for Fusing ($t<8.3\text{ms}$) (Note1)	I^2t	166							A^2S
Typical Thermal Resistance (Note2)	$R_{\theta JC}$	19							K/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +125							$^\circ\text{C}$

Note:1. Non-repetitive for $t>1\text{ms}$ and $< 8.3 \text{ms}$

2. Thermal resistance junction to ambient mounted on PC board with 13.0 x 13.0 x 0.03 mm thick land areas.

"-G" suffix designated RoHS compliant version



KBL400-G thru KBL410-G

Rating and Characteristic Curves (KBL400-G thru 410-G)

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

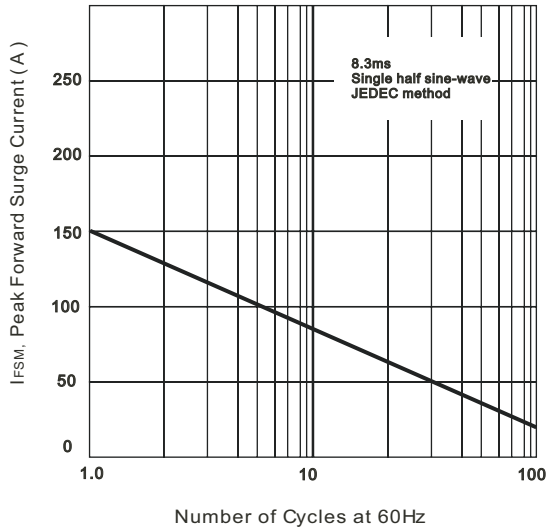


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

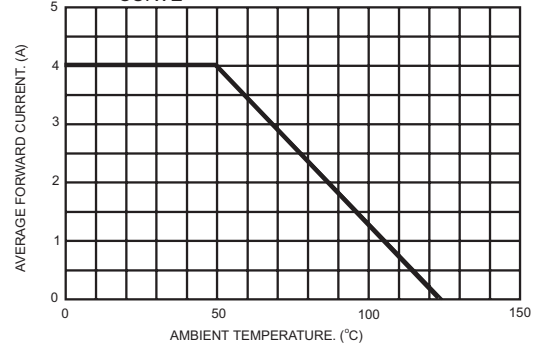


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

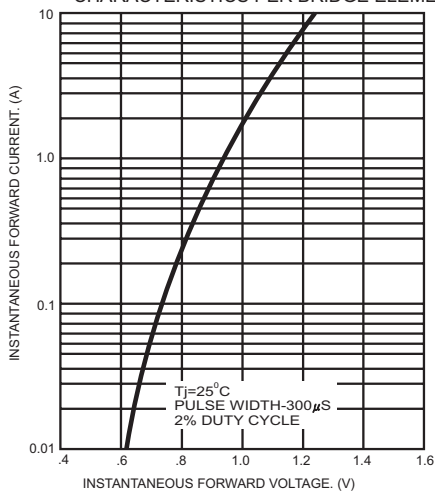


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

