Silicon Bridge Rectifiers

COMCHIP
SMD DIODE SPECIALIST

KBL400-G thru KBL410-G

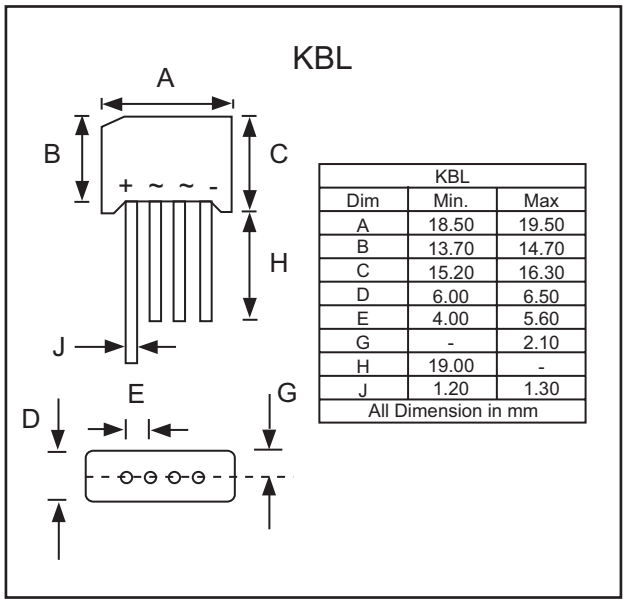
Reverse Voltage: 50 ~ 1000 Volts
Forward Current: 4.0 Amp

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



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	4.00	5.60
G	-	2.10
H	19.00	-
J	1.20	1.30
All Dimension in mm		

Maximum Ratings and Electrical Characteristics

Rating at 25ºC 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 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 = 75ºC	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=25ºC At Rated DC Blocking Voltage @ T_C=100ºC	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)	RθJC	19							K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125							ºC

Note:1. Non-repetitive for t>1ms and < 8.3 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

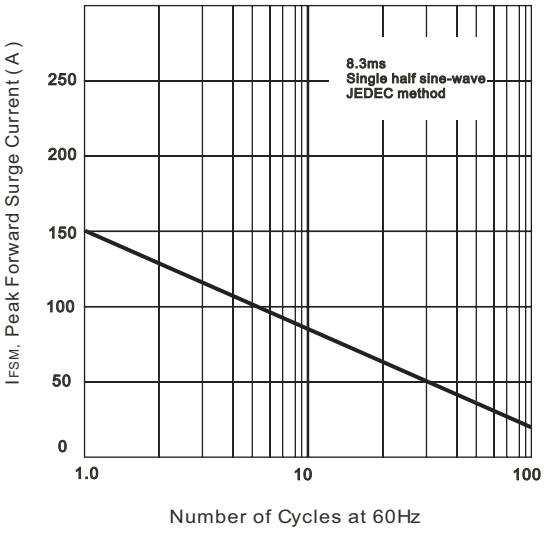


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

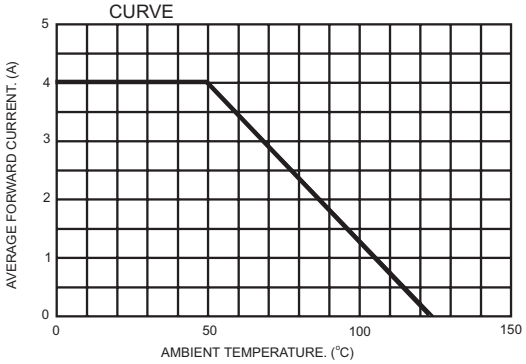


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

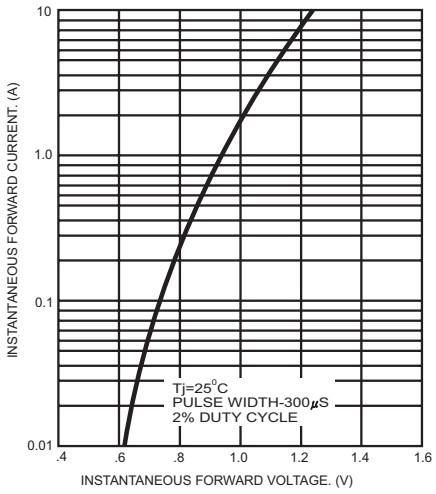
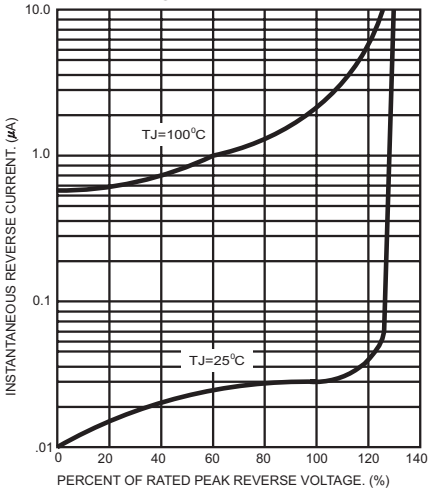


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT



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