

SENSITRON
SEMICONDUCTOR

KBL400G-G – KBL410G-G

4.0A GLASS PASSIVATED BRIDGE RECTIFIER

Data Sheet 1410, Rev.A

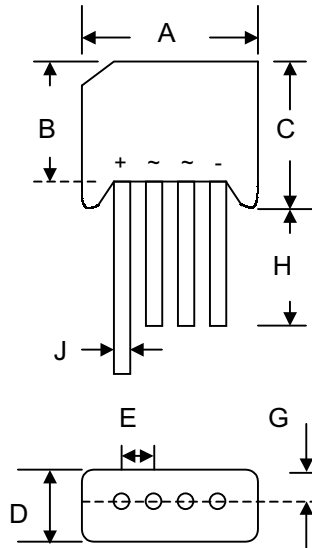
Green Products

Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- UL Recognized File # E223064
- Green Products in Compliance with the RoHS Directive

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 5.6 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



KBL				
Dim	Min	Max	Min	Max
A	18.50	19.50	0.728	0.768
B	13.7	14.7	0.539	0.579
C	15.2	16.3	0.598	0.642
D	6.0	6.50	0.236	0.256
E	4.60	5.60	0.181	0.220
G	—	2.10	—	0.083
H	19.00	—	0.748	—
J	1.20Ø	1.30Ø	0.05Ø	0.05Ø
	In mm		In inch	

Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

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

Characteristic	Symbol	KBL	KBL	KBL	KBL	KBL	KBL	KBL	Unit
		400G-G	401G-G	402G-G	404G-G	406G-G	408G-G	410G-G	
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 @ $T_C = 75^{\circ}\text{C}$	I_O	4.0							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	5.0 1.0							μA mA
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	16							K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							$^{\circ}\text{C}$

Note: 1. Thermal resistance junction to case per element mounted on PC board with 13.0x13.0x0.03mm thick land areas.

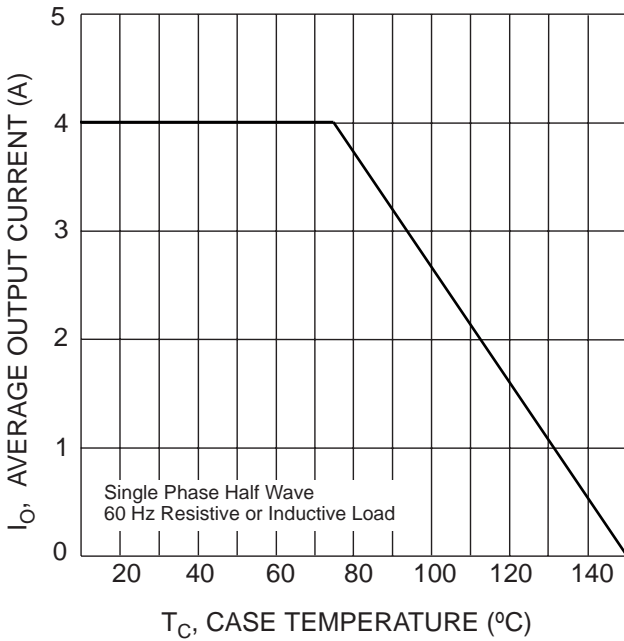


Fig. 1 Forward Current Derating Curve

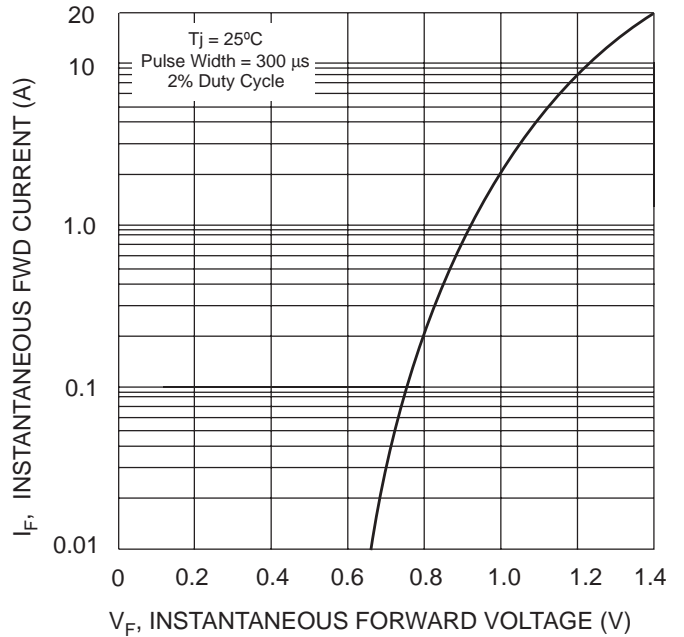


Fig. 2 Typical Forward Characteristics, per element

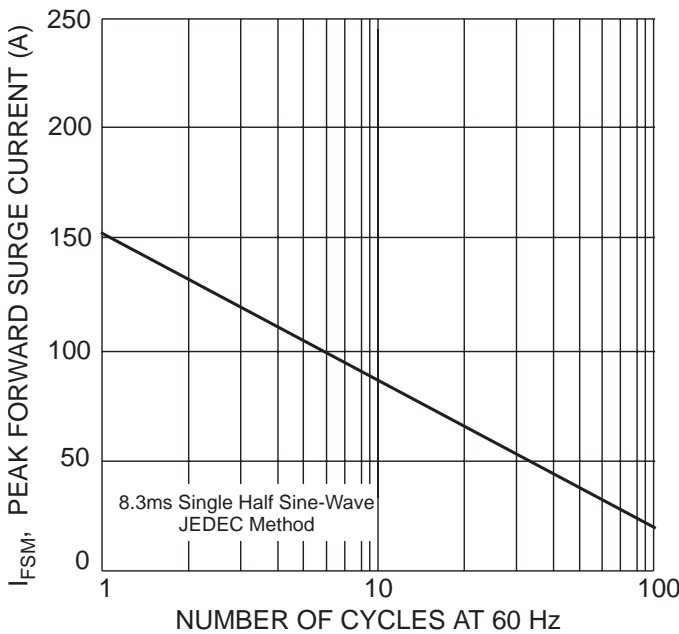


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

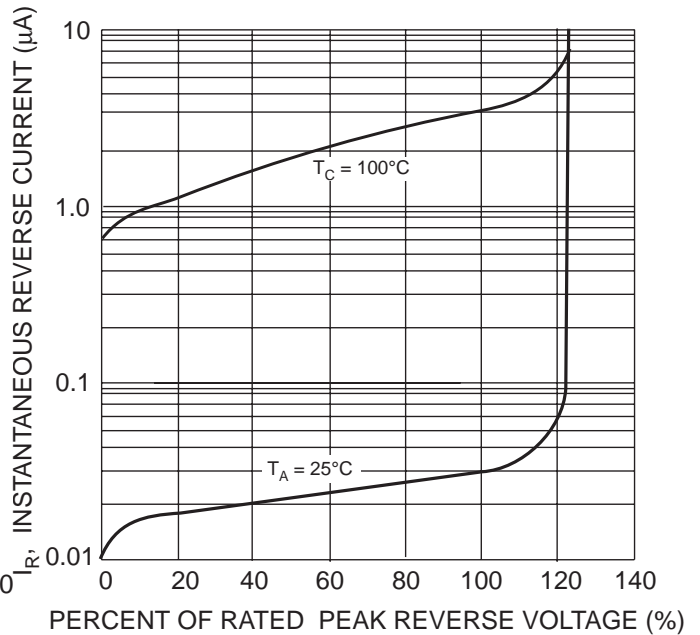


Fig. 4 Typical Reverse Characteristics, per element

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