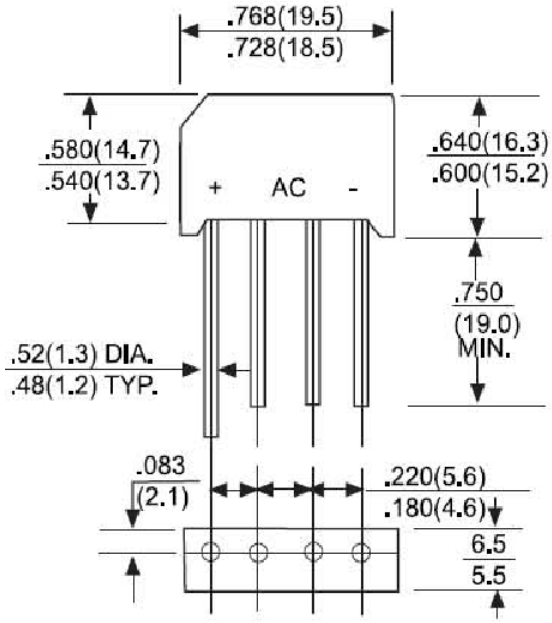
TAIWAN SEMICONDUCTOR

KBL401G - KBL407G

Single Phase 4.0AMPS. Glass Passivated Bridge Rectifiers

RoHS COMPLIANCE

KBL



Dimensions in inches and (millimeters)

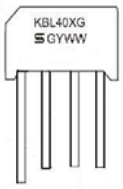
Features

- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed: 260℃/10 seconds / 0.375" (9.5mm) lead length at 5 lbs.,(2.3kg) tension
- ✧ Leads solderable per MIL-STD-202, Method 208
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

- ✧ Case: Molded plastic body
- ✧ Terminals: Leads solderable per MIL-STD-750, Method 2026
- ✧ Weight: 5.61 grams

Marking Diagram



KBL40XG	= Specific Device Code
G	= Green Compound
Y	= Year
WW	= Work Week

Maximum Ratings and Electrical Characteristics

Rating at 25 ℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	Symbol	KBL 401G	KBL 402G	KBL 403G	KBL 404G	KBL 405G	KBL 406G	KBL 407G	Unit
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 Rectified Current @T_A=50℃	$I_{F(AV)}$	4							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150							A
Maximum Instantaneous Forward Voltage (Note 1) @ 2 A @ 4 A	V_F	1.0 1.1							V
Maximum DC Reverse Current @T_A=25℃ at Rated DC Block Voltage @ T_A=125 ℃	I_R	10 500							uA
Typical Thermal Resistance (Note 2)	$R_{\theta jA}$ $R_{\theta jL}$	19 2.4							^{O}C/W
Operating Temperature Range	T_J	- 55 to + 150							^{O}C
Storage Temperature Range	T_{STG}	- 55 to + 150							^{O}C

Note 1 : Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2 : Unit mount on P.C.B. 0.6" x 0.6" (16mmx16mm) Copper pads

Version:F11

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RATINGS AND CHARACTERISTIC CURVES (KBL401G THRU KBL407G)

FIG.1 FORWARD CURRENT DERATING CURVE

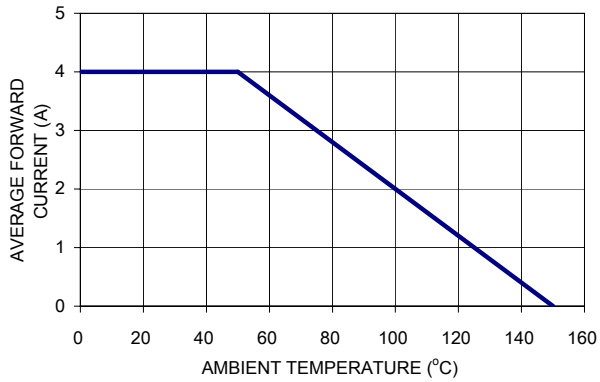


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

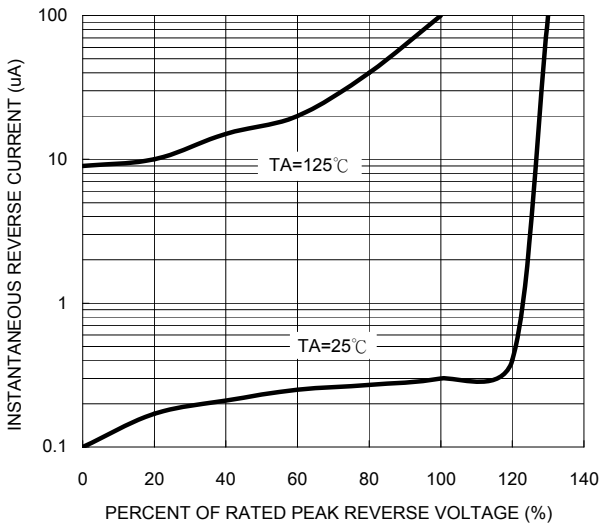


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

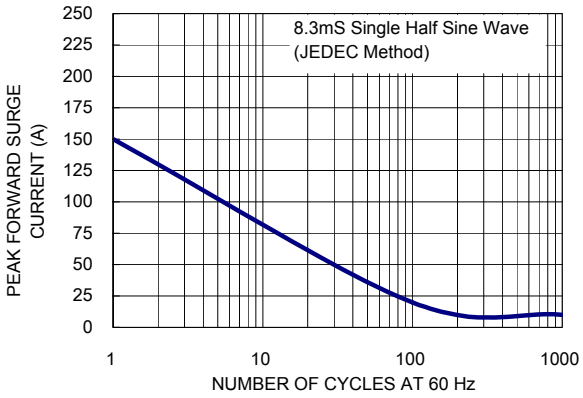


FIG. 4 TYPICAL JUNCTION CAPACITANCE

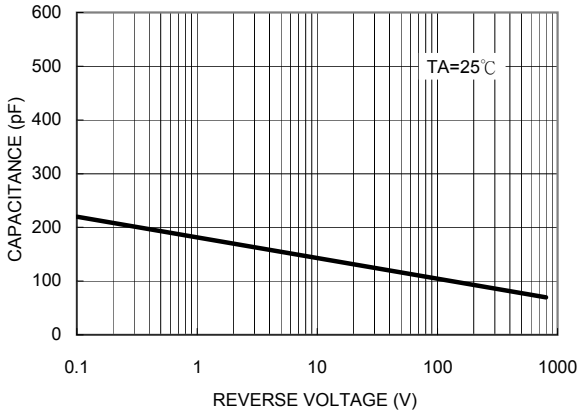
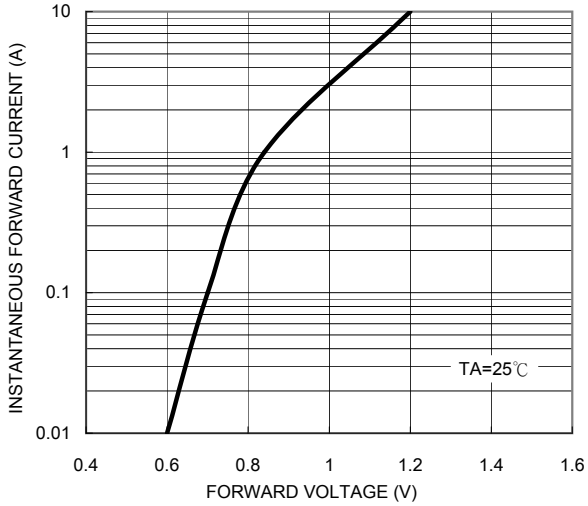


FIG. 5 TYPICAL FORWARD CHARACTERISRICS



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