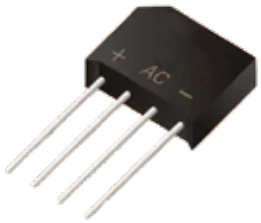
FEATURES

- Glass passivated chip junction
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability



KBL

MECHANICAL DATA

- Case: Molded plastic, KBL
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Pure tin plated, lead free, Leads solderable

APPROVALS

RoHS	Compliance with 2011/65/EU

MAXIMUM RATINGS AND CHARACTERISTICS (T_A=25°C)

Parameter		Symbol	KBL 6005	KBL 601	KBL 602	KBL 604	KBL 606	KBL 608	KBL 610	Unit
Marking			KBL 6005	KBL 601	KBL 602	KBL 604	KBL 606	KBL 608	KBL 610	
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 At TA=50°C		$I_{F(AV)}$	6.0							A
Peak Forward Surge Current Single Sine-wave Superimposed On Rated Load (JEDEC Method)		I_{FSM}	200							A
Maximum Forward Voltage at 6.0A DC and 25°C		V_F	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage	T_A=25°C	I_R	10							μA
	T_A=125°C		500							μA
Typical Thermal Resistance		$R_{\theta JA}$ (Note 1)	19							°C/W
		$R_{\theta JL}$ (Note 2)	2.4							°C/W
Operating Junction And Storage Temperature Range		T_J, T_{STG}	-55 ~ +150							°C

NOTES:
1- Thermal Resistance from Junction to Ambient Al-Plate.
2- Thermal Resistance from Junction to Lead with units Mounted on P.C.B. at 0.375(9.5mm) Lead Length and 0.6" x 0.6"(16mm x 16mm) Copper Pads.

CHARACTERISTIC CURVES

Fig. 1-Maximum Forward Current Derating Curve

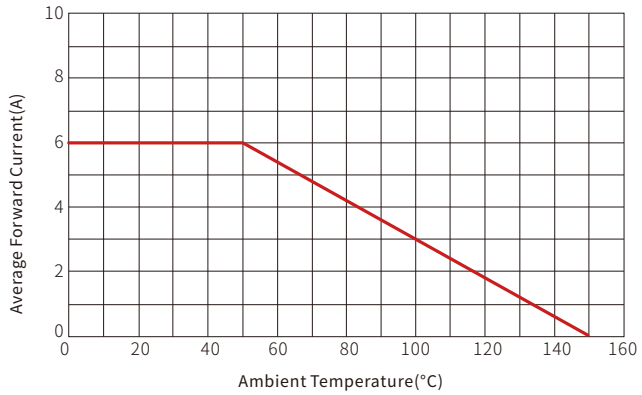


Fig. 2-Maximum Non-Repetitive Forward Surge Current Per Bridge Element

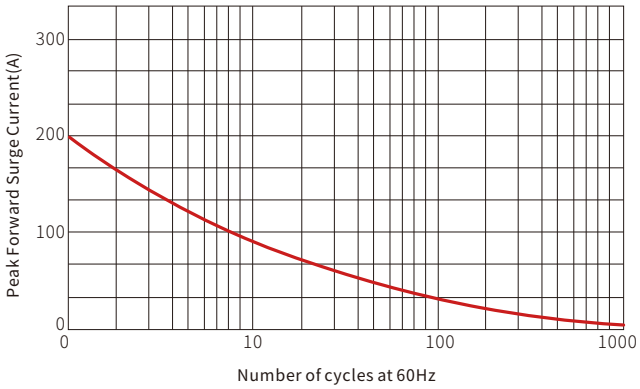


Fig. 3-Typical Reverse Characteristics Per Bridge Element

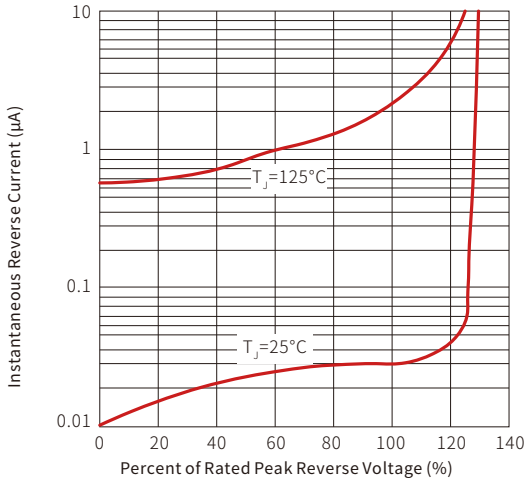


Fig. 4-Typical Instantaneous Forward Characteristics Per Bridge Element

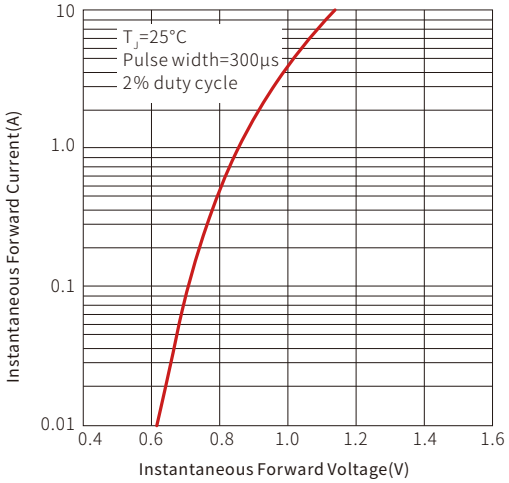
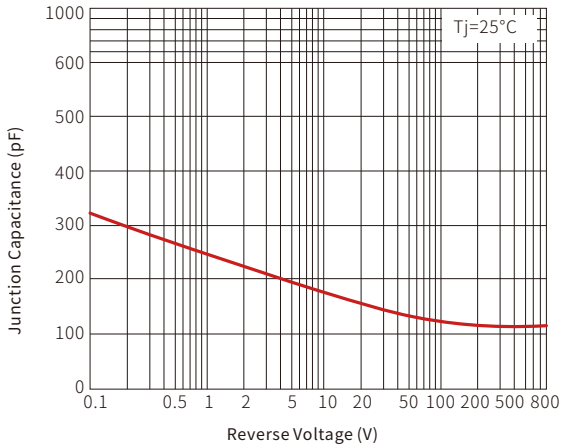
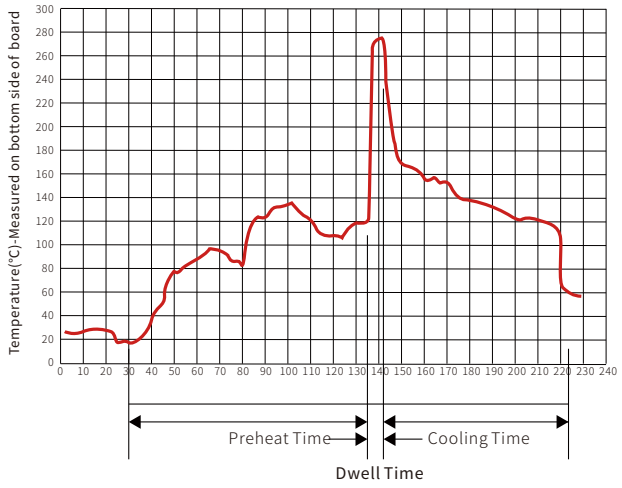


Fig. 5-Typical Junction Capacitance

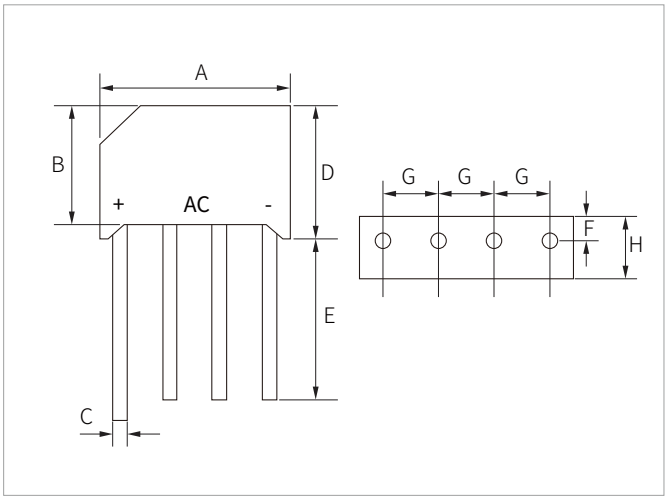


WAVE SOLDERING



Wave Parameter		Lead–free assembly
Pre Heat	Temperature Min	100°C
	Temperature Max	150°C
	Time(min to max)	60 – 180 secs
Solder pot Temperature		280°C Max
Solder Dwell Time		2-5 seconds

KBL PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	18.50	19.50	0.728	0.768
B	13.70	14.70	0.540	0.580
C	1.00	1.10	0.039	0.043
D	15.20	16.30	0.600	0.640
E	16.0 Min.		0.630 Min.	
F	1.50		0.059	
G	4.60	5.60	0.180	0.220
H	4.30	4.80	0.169	0.189

ORDERING INFORMATION

Part Number	Component Package	Per Box	Description
KBL6005-KBL610	KBL	500PCS	Box

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