

KBJL1010(LS)

GLASS PASSIVATED BRIDGE RECTIFIER

**REVERSE VOLTAGE – 1000 Volts
FORWARD CURRENT – 10 Amperes**

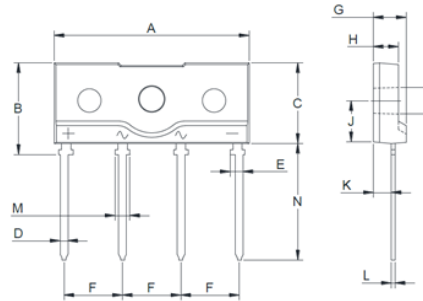
FEATURES

- Low forward voltage drop
- Ideal for printed circuit board
- High surge current capability
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. “Green” Device (Note 3)**

MECHANICAL DATA

- Package: KBJL
- Package Material: Plastic material, UL flammability classification 94V-0
- Component in accordance to RoHS 2002/95/EC
- Polarity indicator: Symbol molded on body
- Weight: 2.4 grams (Approximate)
- Marking code: KBJL1010

KBJL



KBJL		
DIM	MIN	MAX
A	24.7	25.3
B	11.4	12.0
C	10.0	10.6
D	0.9	1.1
E	1.75(MAX)	
F	7.3	7.7
G	3.9	4.5
H	2.9	3.9
I	3.1	3.4
J	5.4	6.0
K	2.0	2.6
L	0.4	0.6
M	2.1	2.3
N	14.6	15.2
All dimension in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	1000	V
Maximum DC blocking voltage	V_{DC}	1000	V
Average rectified output current per device	$I_{(AV)}$	With heatsink @ $T_C=125^\circ\text{C}$	10
		Without heatsink @ $T_a=25^\circ\text{C}$	2.6
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	@ $T_A=25^\circ\text{C}$	150
		@ $T_A=125^\circ\text{C}$ (Note 4)	120
Peak forward surge current 1ms single half sine-wave superimposed on rated load	I_{FSM}	@ $T_A=25^\circ\text{C}$	300
		@ $T_A=125^\circ\text{C}$ (Note 4)	240
$I^2 t$ rating for fusing ($t=8.3\text{ms}$)	$I^2 t$	93.3	A ² S
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION	SYMBOL	TYP.	MAX	UNIT
Forward voltage	$I_F = 5\text{A}$ $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$ (Note 4)	V_F	0.94 0.83	1.10 --	V
Leakage current	$V_R=1000\text{V}$ $T_A = 25^\circ\text{C}$	I_R	0.14	10	uA
Typical junction capacitance (Note 5)		C_J	55		pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical Thermal Resistance (without heatsink)	R_{thJC}	6	°C/W
	R_{thJL}	14	
	R_{thJA}	15	
Typical thermal resistance (Note 6)	R_{thJC}	2	°C/W
	R_{thJL}	3	
	R_{thJA}	5	

Notes:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Perform static test after the temperature of oven is steady 20 minutes.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Thermal resistance junction to case, lead and ambient in accordance with JESD-51. Unit mounted on 100mm * 100mm * 5mm AL heatsink

RATING AND CHARACTERISTIC CURVES
KBJL1010

FIG.1- FORWARD CURRENT DERATING CURVE

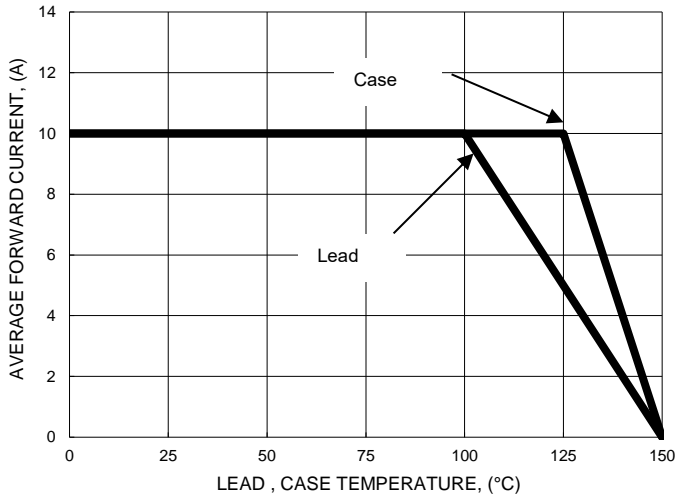


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

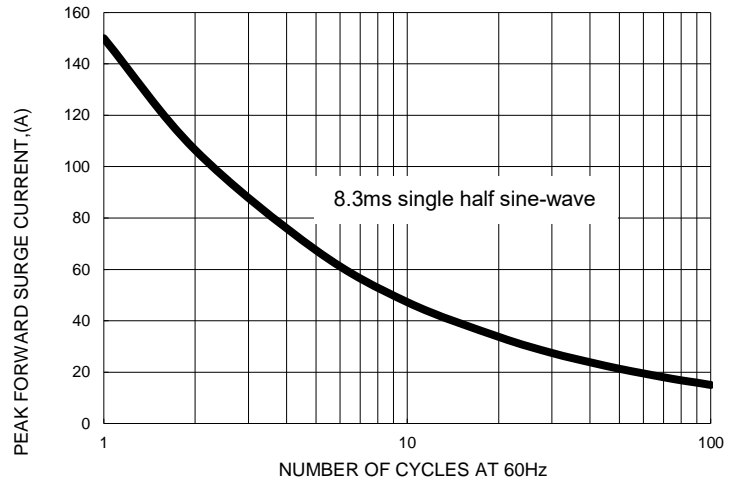


FIG.3- TYPICAL FORWARD CHARACTERISTICS

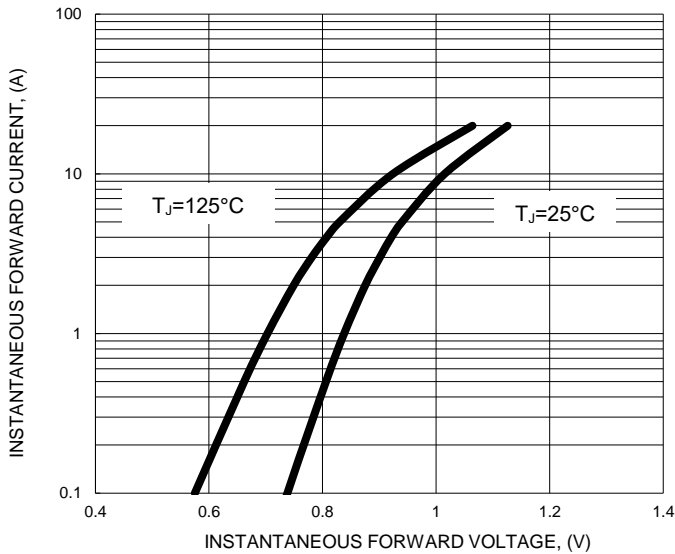


FIG.4- TYPICAL JUNCTION CAPACITANCE

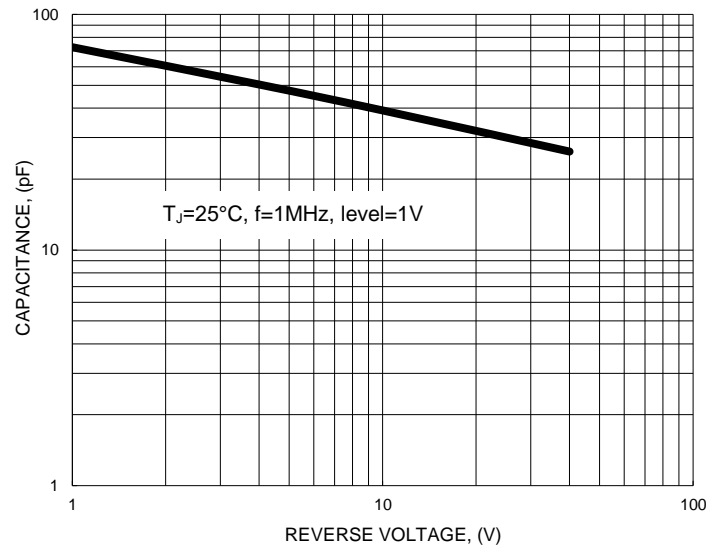
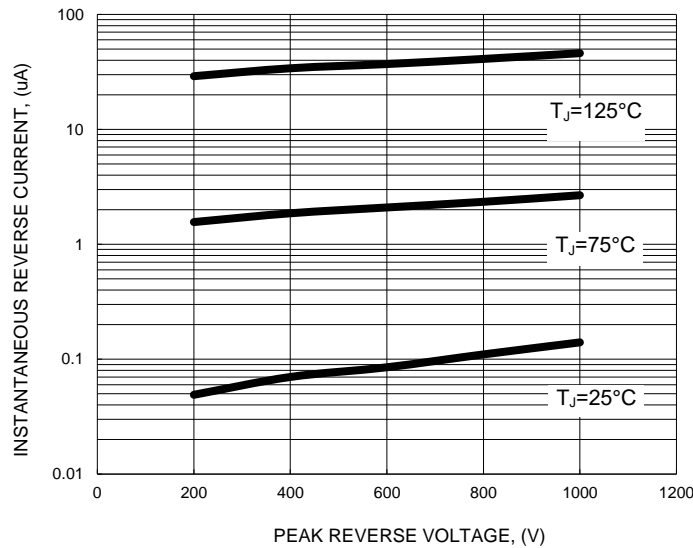


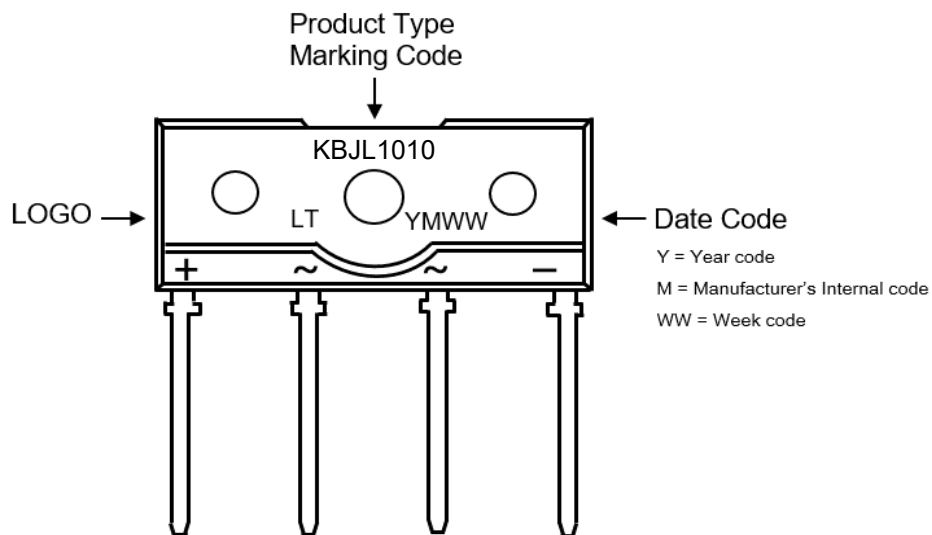
FIG.5- TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
KBJL1010_HF	KBJL	20pcs	Tube

Marking Information :



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