A Product Line of Diodes Incorporated | LITE-ON SEMICONDUCTOR

Green

KBP206G-KBP210G(LS)

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE – 600 to 1000 Volts
FORWARD CURRENT – 2.0 Ampere

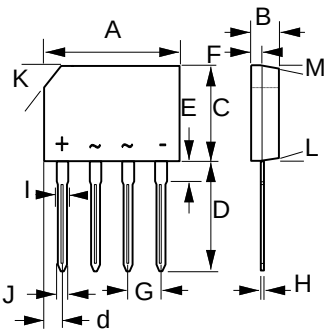
FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94V-0
- UL recognized file #95060
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Polarity: As marked on body
- Weight: 1.52 grams
- Mounting position: Any

KBP



KBP		
DIM.	MIN.	MAX.
A	14.25	14.75
B	3.35	3.65
C	10.20	10.60
D	14.25	14.73
d	1.40	1.70
E	1.80	2.20
F	0.80	1.10
G	3.56	4.06
H	0.35	0.55
I	1.22	1.42
J	0.76	0.86
K	2.7 x 45°(Typ.)	
L	-	3°
M	-	2°
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	KBP206G	KBP208G	KBP210G	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	600	800	1000	V
Maximum Average Forward Rectified Current @T_C =100°C	$I_{(AV)}$	2.0			A
Peak Forward Surge Current @ T_J = 25°C 8.3ms single half sine-wave @ T_J = 125°C	I_{FSM}	75 65			A
Peak Forward Surge Current @ T_J = 25°C 1.0ms single half sine-wave @ T_J = 125°C	I_{FSM}	150 130			A
Maximum Forward Voltage at 2.0A DC	V_F	1.1			V
Maximum DC Reverse Current at rated Blocking Voltage @ T_J =25°C @ T_J =125°C	I_R	5.0 500			uA
I^2t Rating for fusing (t =8.3ms)	I^2t	17.5			A^2S
Typical Junction Capacitance per element (Note 4)	C_T	25			pF
Typical thermal resistance (Note 5)	$R_{\Theta JC}$ $R_{\Theta JL}$ $R_{\Theta JA}$	10 18 40			°C/W
Operation Temperature Range	T_J	-55 to 150			°C
Storage Temperature Range	T_{STG}	-55 to 150			°C

Note:

REV. 18, Nov-2021, KBDE02

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. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
5. Thermal Resistance Junction to Case, Lead and Ambient.

RATING AND CHARACTERISTIC CURVES
KBP206G-KBP210G(LS)

FIG.1- FORWARD CURRENT DERATING CURVE

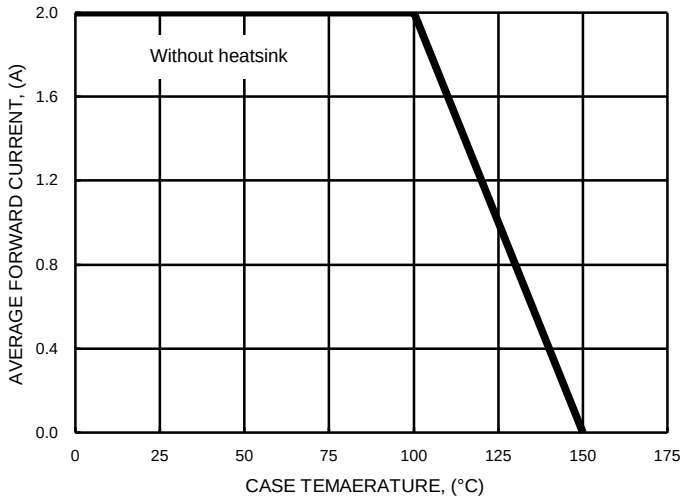


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

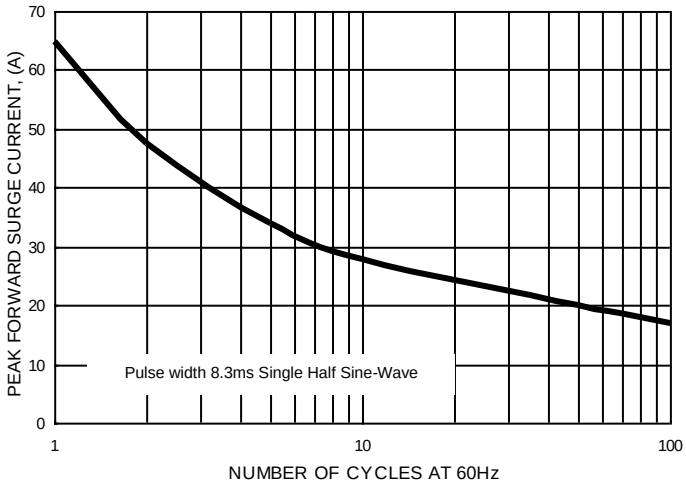


FIG.3- TYPICAL JUNCTION CAPACITANCE

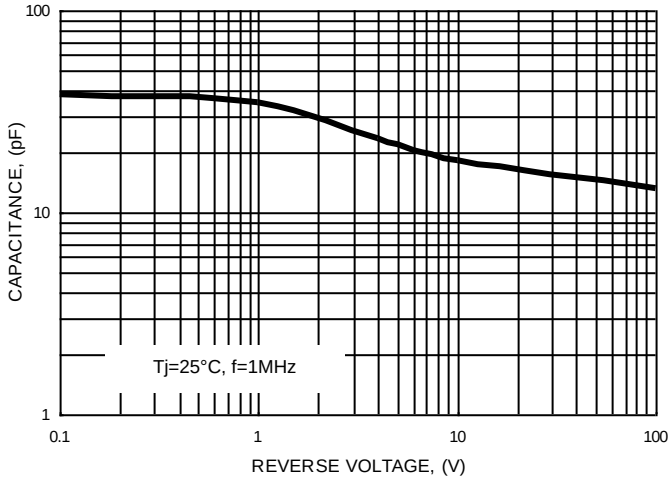


FIG.4- TYPICAL FORWARD CHARACTERISTICS

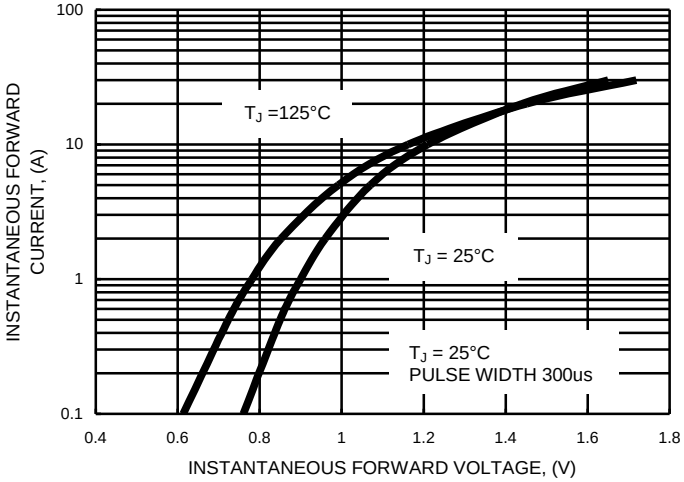


FIG.5- TYPICAL REVERSE CHARACTERISTICS

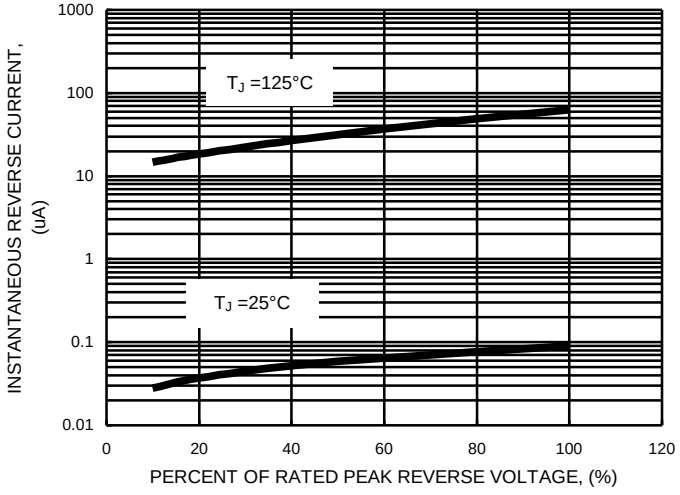
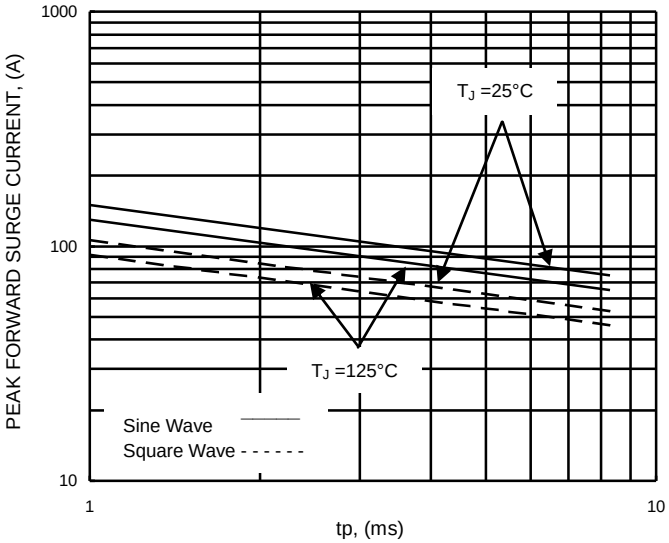


FIG.6_NON-REPETITIVE SURGE CURRENT



RATING AND CHARACTERISTIC CURVES
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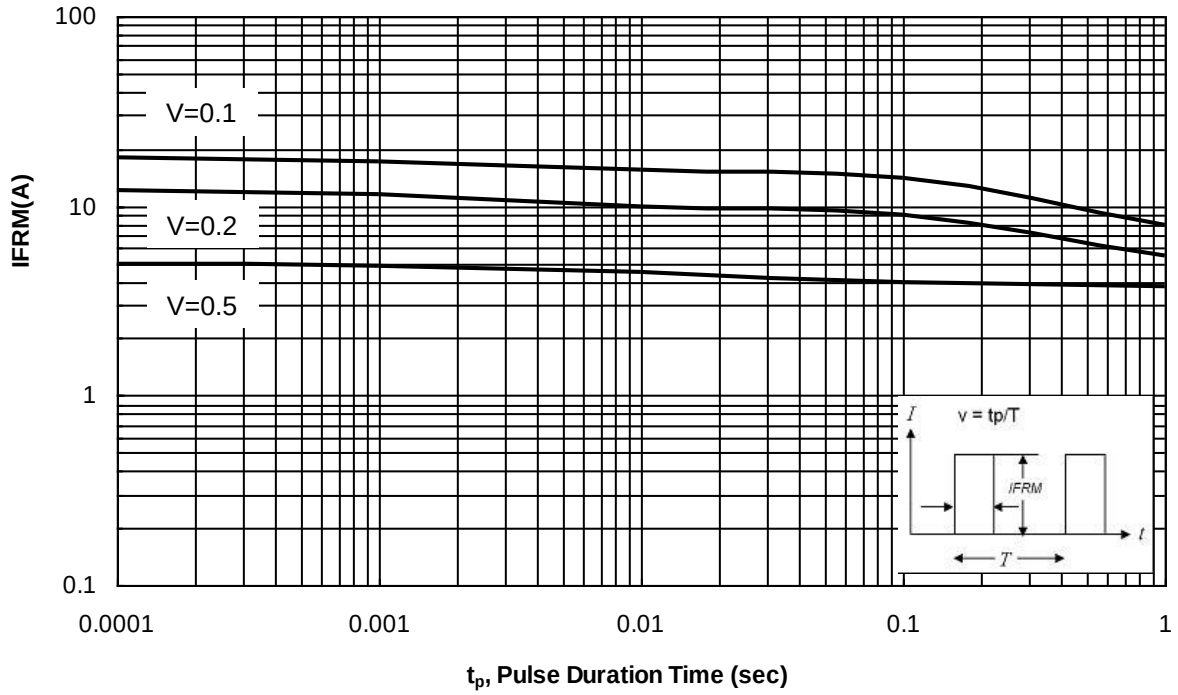
Fig.7 - Admissible Repetitive Peak Forward Current vs. Pulse Duration

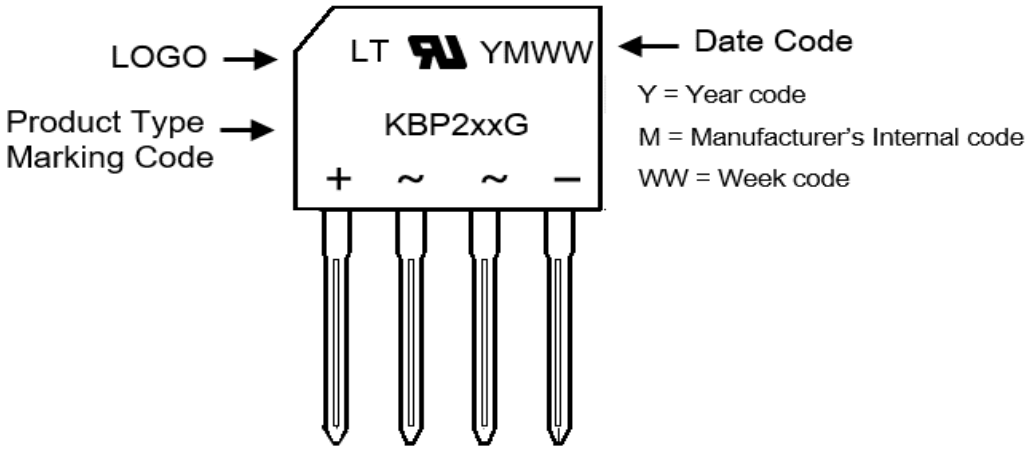


t_p, Pulse Duration Time (sec)

Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
KBP206G_HF	KBP	35	Tube
KBP208G_HF	KBP	35	Tube
KBP210G_HF	KBP	35	Tube

Marking Information:



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