LITE-ON SEMICONDUCTORS

KBP304G~KBP310G

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE – 400 to 1000 Volts
FORWARD CURRENT – 3.0 Ampere

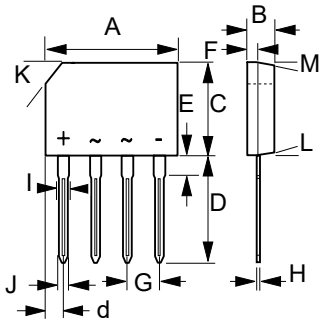
FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94V-0
- UL recognized file #95060

MECHANICAL DATA

- Polarity : As marked on body
- Weight : 0.05 ounces, 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	KBP304G	KBP306G	KBP308G	KBP310G	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	400	600	800	1000	V
Maximum Average Forward Rectified Current @T_C=105°C (With heatsink) (Without heatsink)	$I_{(AV)}$	3.0 1.9				A
Peak Forward Surge Current @ Tj = 25 ℃ 8.3ms single half sine-wave @ T_J = 125℃	I_{FSM}	90 80				A
Peak Forward Surge Current @ Tj = 25 ℃ 1.0ms single half sine-wave @ T_J = 125℃	I_{FSM}	180 160				A
Maximum Forward Voltage at 3.0A DC	V_F	1.1				V
Maximum DC Reverse Current at rated Blocking Voltage @Tj=25°C @Tj=125°C	I_R	5.0 500				uA
I^2t Rating for fusing (3ms≦t ≦8.3ms)	I^2t	26.5				A^2S
Typical Junction Capacitance per element (Note 1)	C_J	50				pF
Typical thermal resistance (Unit mounted on 30mmx30mmx1mm Copper plate heatsink.)	$R_{\Theta JC}$ $R_{\Theta JL}$ $R_{\Theta JA}$	10 12 30				°C/W
Typical thermal resistance (without heatsink)	$R_{\Theta JC}$ $R_{\Theta JL}$ $R_{\Theta JA}$	12 18 40				°C/W
Operation Temperature Range	T_J	-55 to +150				°C
Storage Temperature Range	T_{STG}	-55 to +150				°C

Note: (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

RATING AND CHARACTERISTIC CURVES
KBP304G thru KBP310G

LITEON

FIG.1- FORWARD CURRENT DERATING CURVE

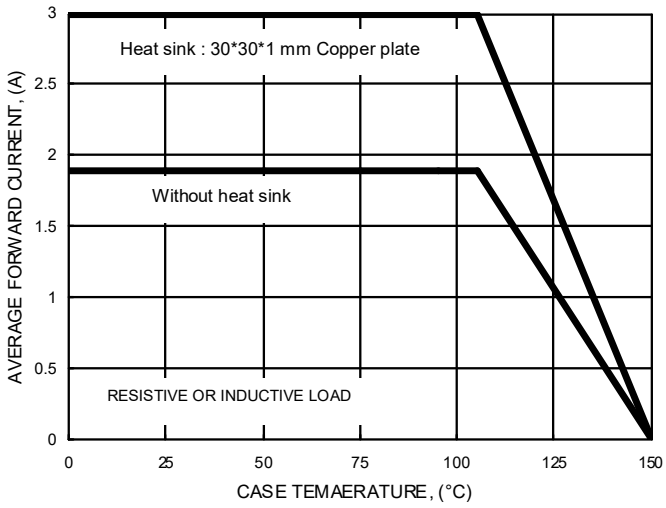


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

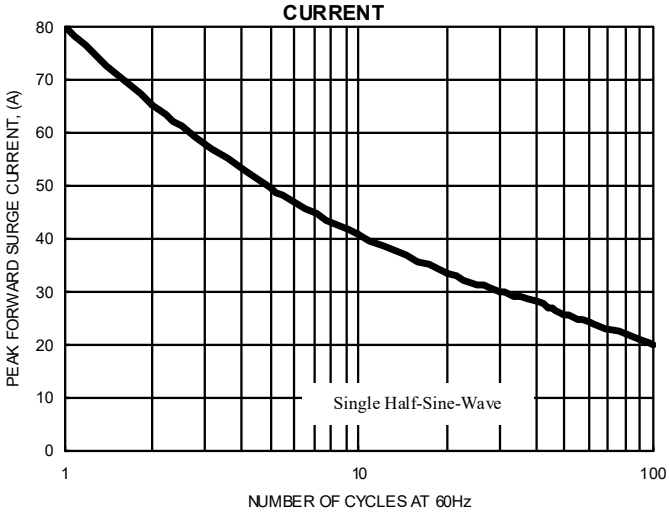


FIG.3- TYPICAL JUNCTION CAPACITANCE

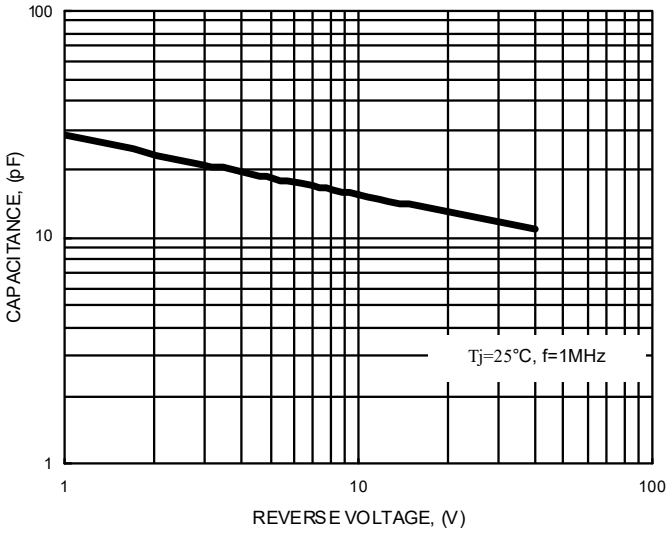


FIG.4- TYPICAL FORWORD CHARACTERISTICS

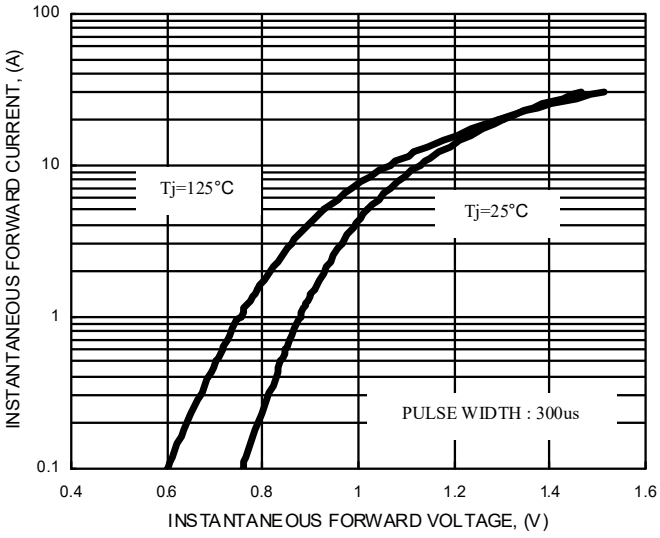


FIG.5- TYPICAL REVERSE CHARACTERISTICS

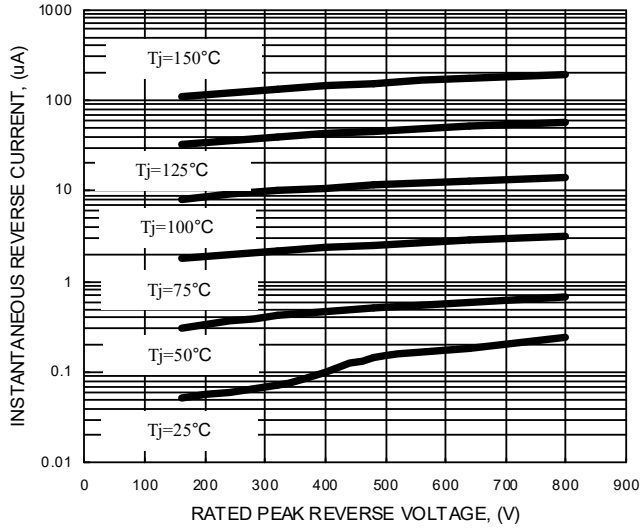
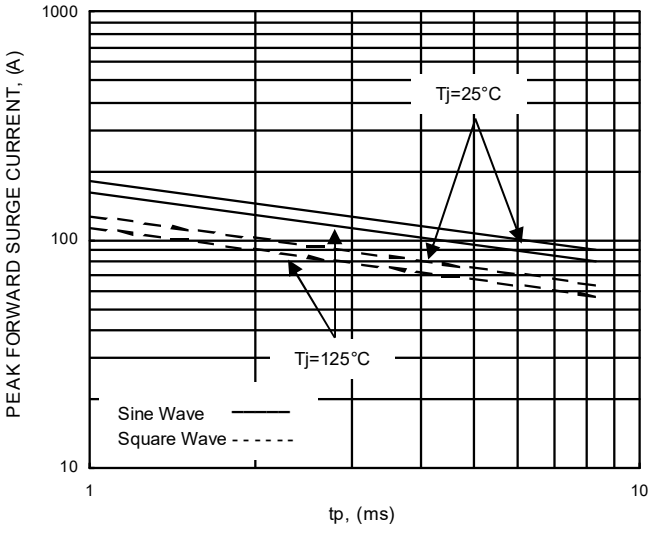


FIG.6_NON-REPETITIVE SURGE CURRENT



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