

Glass Passivated Bridge Rectifier Reverse Voltage 50 to 1000 Volts Forward Current 2.0 Amperes

Features

- Reliable low cost construction utilizing molded plastic technique surge current capability
- Rating to 1000V PRV
- Ideal for printed circuit boards
- Glass passivated chip junction
- The plastic material has UL flammability classification 94V-0

Mechanical Data

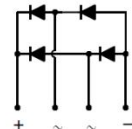
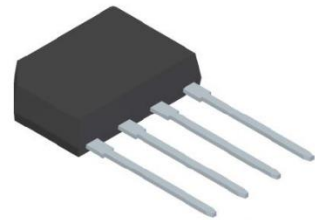
Polarity : As marked on body

Case : KBP- G type

Terminals : Solderable per MIL-STD-750, Method 2026

Weight : 1.52grams

KBP



Maximum Ratings Characteristics (TA = 25°C unless otherwise specified)

Parameter	Symbol	KBP 2005G	KBP 201G	KBP 202G	KBP 204G	KBP 206G	KBP 208G	KBP 210G	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 output current rectified	$I_{F(AV)}$	2							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60							A
Operating junction temperature range	T_J	-55 to +150							°C
Storage temperature range	T_{STG}	-55 to +150							°C

Electrical Characteristics (TA = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum Instantaneous forward voltage drop per leg at 2.0A	V_F	1.1	V
Typical Junction Capacitance (Note 1)	C_J	25	pF
Maximum DC reverse current at rated DC blocking voltage per leg	I_R	5	uA
		500	
Rating for fusing (3ms ≤ t ≤ 8.3ms)	I^2t	14.94	A ² S
Typical thermal resistance per leg (Note 2)	$R_{\theta JC}$	10	°C/W
	$R_{\theta JL}$	18	
	$R_{\theta JA}$	40	

Note 1) Measured at 1MHz and applied reverse voltage of 4.0 VDC

2) Thermal Resistance Junction to Case, Lead and Ambient

Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise specified)

FIG.1- FORWARD CURRENT DERATING CURVE

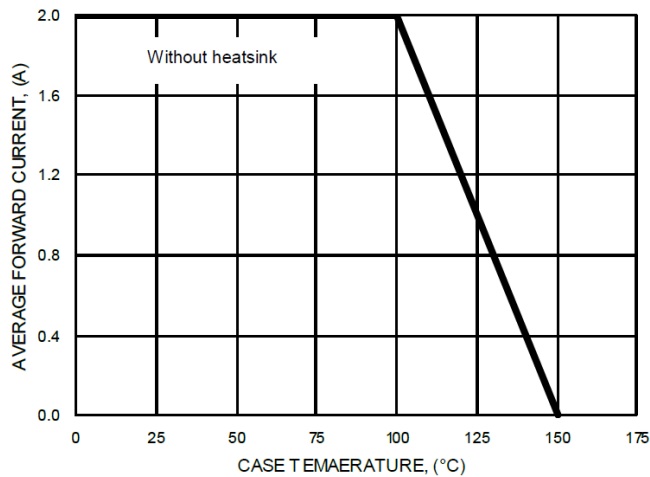


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

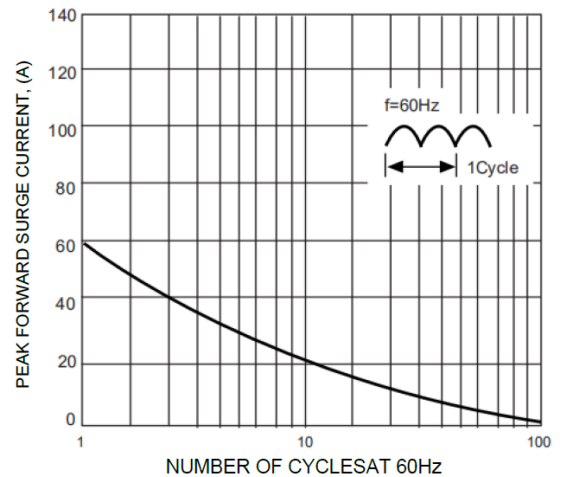


FIG.3- TYPICAL JUNCTION CAPACITANCE

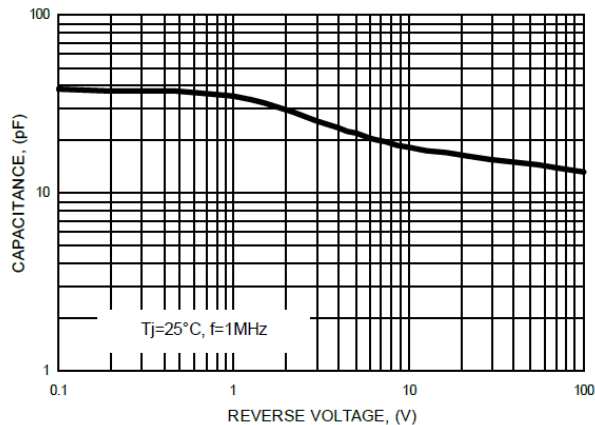


FIG.4- TYPICAL FORWARD CHARACTERISTICS

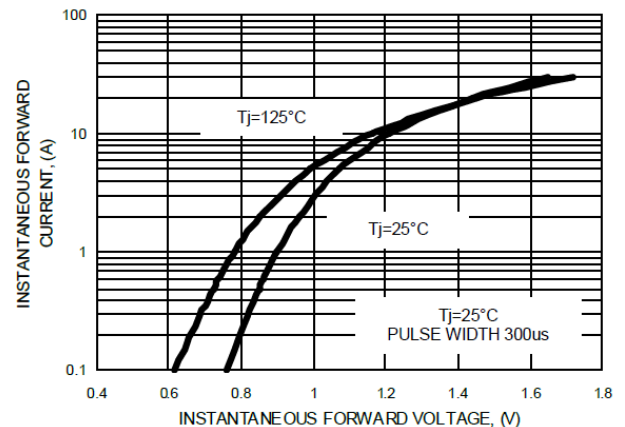
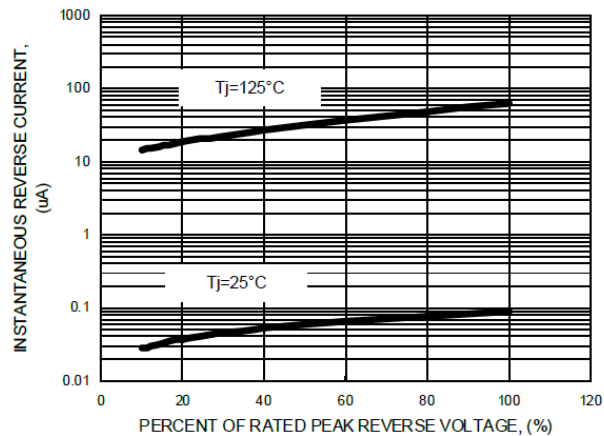


FIG.5- TYPICAL REVERSE CHARACTERISTICS



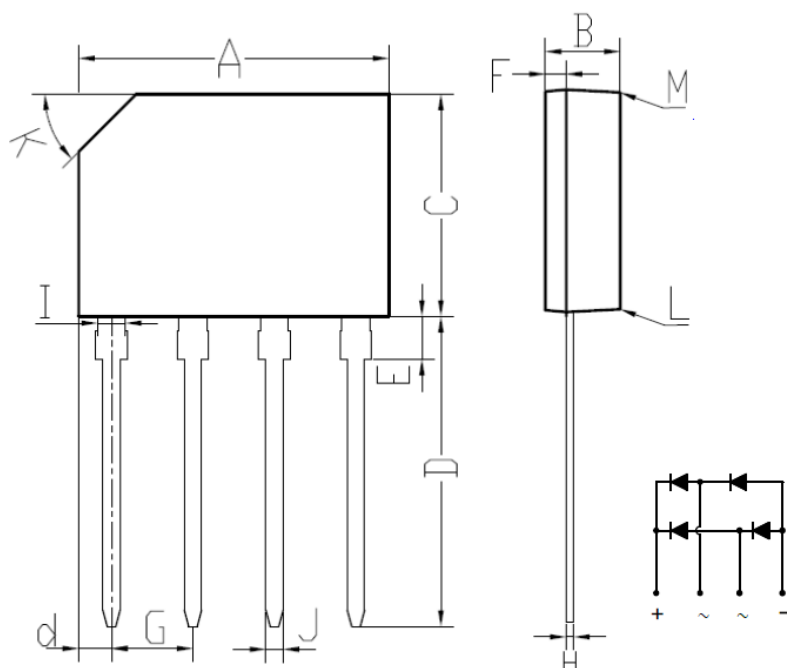


Semi

Advanced Power Semiconductor

KBP2005G THRU KBP210G

Package outline Dimensions : KBP



KBP		
DIM.	MIN.	MAX.
A	14.20	14.70
B	3.30	3.60
C	10.20	10.60
D	13.80	14.40
d	1.40	1.70
E	1.80	2.20
F	0.80	1.10
G	3.71	3.91
H	0.30	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		

Revision History

No	Date	Contents
0	2021-11-21	Initial Brief Datasheet Release

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