

SENSITRON

SEMICONDUCTOR

Data Sheet 1392, Rev. A

KBP005M-G – KBP10M-G

1.5A GLASS PASSIVATED BRIDGE RECTIFIER

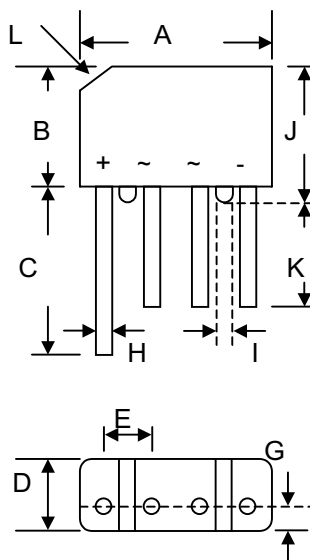
Green Products

Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- UL Recognized File # E223064
- Green Products in Compliance with the RoHS Directive

Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 1.7 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



KBP				
Dim	Min	Max	Min	Max
A	14.22	15.24	0.560	0.6
B	10.67	11.68	0.420	0.460
C	15.2	—	0.598	—
D	4.57	5.08	0.180	0.2
E	3.60	4.10	0.142	0.161
G	2.16	2.67	0.085	0.105
H	0.76	0.86	0.030	0.034
I	1.52	—	0.060	—
J	11.68	12.7	0.460	0.5
K	12.7	—	0.5	—
L	3.2 X 45°C Typical		0.126 X 45°C Typical	
	In mm		In inch	

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristic	Symbol	KBP 005M	KBP 01M	KBP 02M	KBP 04M	KBP 06M	KBP 08M	KBP 10M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @T _A = 50°C	I _O	1.5							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50							A
Forward Voltage (per element) @I _F = 1.5A	V _{FM}	1.1							V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _{RM}	10 500							μA
Rating for Fusing (t<8.3ms)	I ² _t	10							A ² s
Typical Junction Capacitance per element (Note 2)	C _j	15							pF
Typical Thermal Resistance (Note 3)	R _{θJA}	28							K/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150							°C

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

3. Thermal resistance junction to ambient mounted on PC board with 12mm² copper pad.

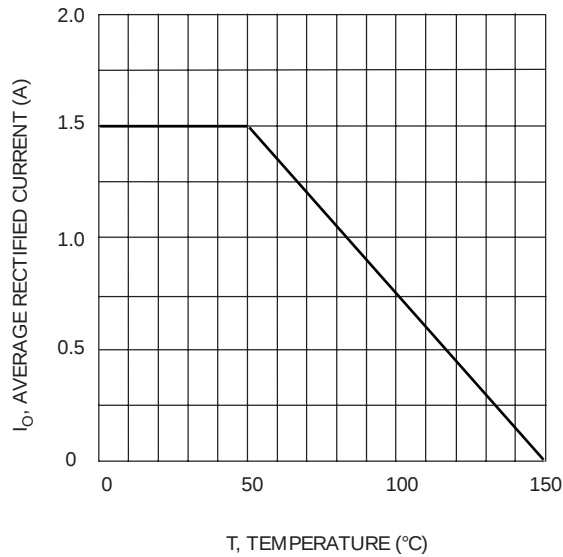


Fig. 1 Forward Current Derating Curve

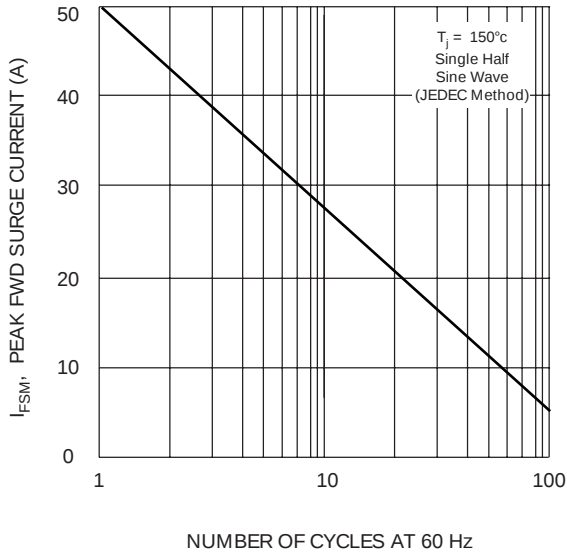


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

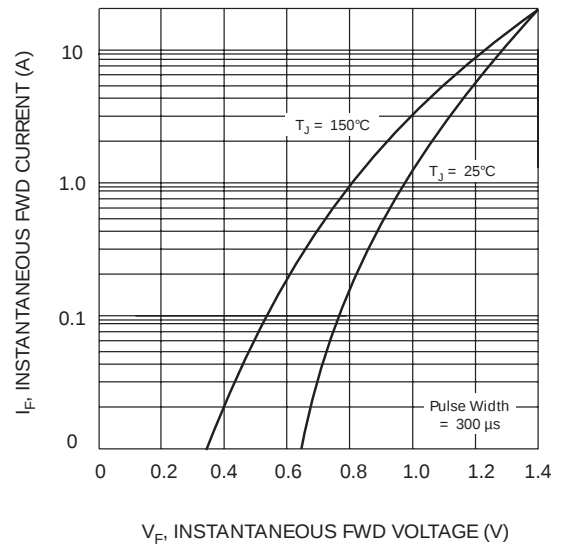


Fig. 2 Typical Fwd Characteristics

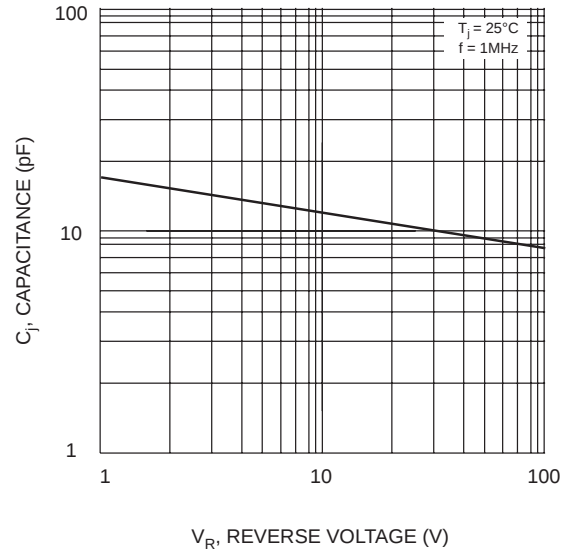


Fig. 4 Typical Junction Capacitance

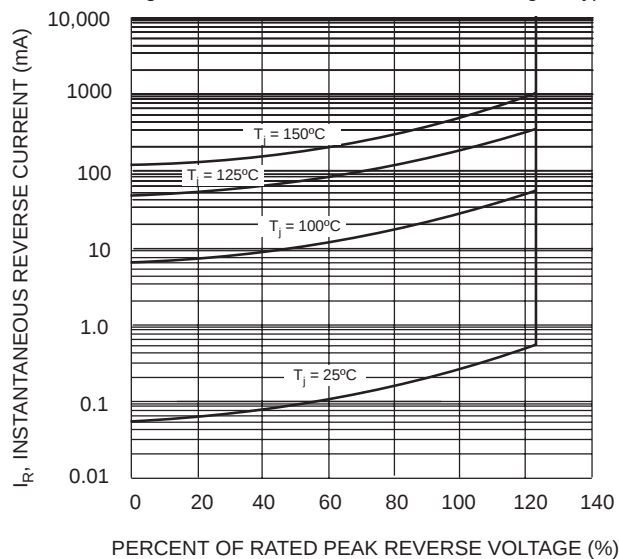


Fig. 5 Typical Reverse Characteristics

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