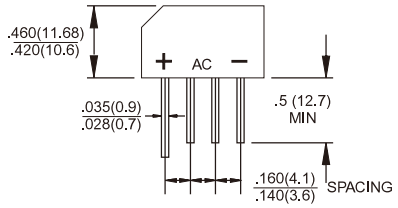
TAIWAN SEMICONDUCTOR

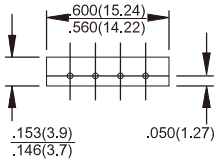
RoHS COMPLIANCE

KBP151G - KBP157G

Single Phase 1.5 AMPS. Glass Passivated Bridge Rectifiers

KBP





Dimensions in inches and (millimeters)

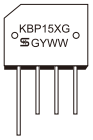
Features

- ✧ UL Recoganized File # E-326243
- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed: 260 °C / 10 seconds at 5 lbs., (2.3 kg) tension
- ✧ Small size, simple installation
- ✧ Green compound with suffix “G” on packing code & prefix “G” on datecode.

Mechanical Data

- ✧ Case : Molded Plastic
  Terminal : Leads solderable per MIL-STD-202
- ✧ Method 208
- ✧ Weight:1.5 grams

Marking Diagram



KBP15XG = Specific Device Code
G = Green Compound
Y = Year
WW = Work Week

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	Symbol	KBP 151G	KBP 152G	KBP 153G	KBP 154G	KBP 155G	KBP 156G	KBP 157G	Units
Maximum Recurrent 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 Rectified Current @T_A = 50 °C	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage @ 1.5A	V_F	1.1							V
Maximum DC Reverse Current @ T_A=25°C at Rated DC Blocking Voltage (Note 1) @ T_A=125°C	I_R	10 500							uA uA
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	40 13							°C/W
Operating Temperature Range	T_J	-55 to +150							°C
Storage Temperature Range	T_{STG}	-55 to +150							°C

Note: 1. Pulse Test with PW=300 usec,1% Duty Cycle
2. Mounted on P.C.B.with 0.4” x 0.4” (10mm x 10mm) Copper Pads.

Version: C10

RATINGS AND CHARACTERISTIC CURVES (KBP151G THRU KBP157G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

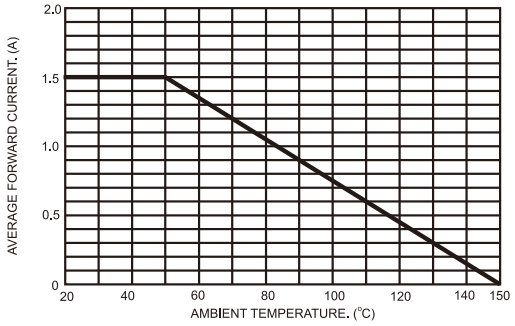


FIG.2- TYPICAL REVERSE CHARACTERISTICS

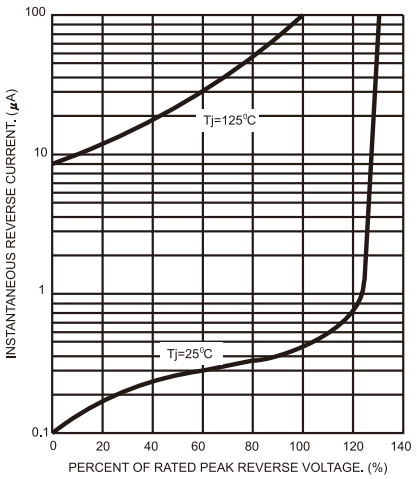


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

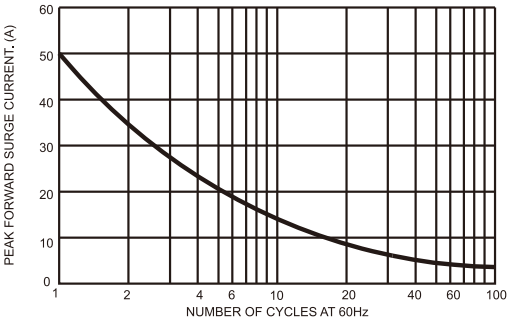


FIG.4- TYPICAL JUNCTION CAPACITANCE

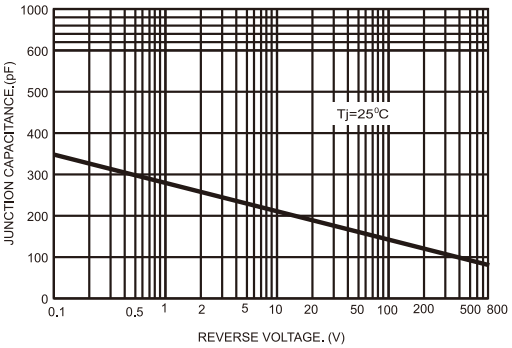


FIG.5- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT