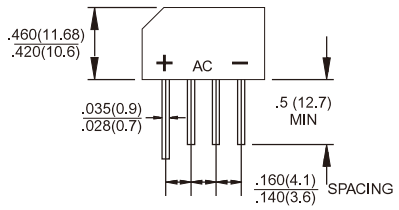
TAIWAN SEMICONDUCTOR

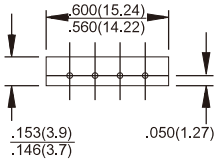
RoHS COMPLIANCE

KBP101G - KBP107G

Single Phase 1.0 AMP.
Glass Passivated Bridge Rectifiers

KBP





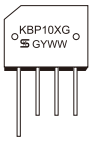
Dimensions in inches and (millimeters)

Features

- ✧ UL Recognized 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:1.52 grams



KBP10XG = 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 101G	KBP 102G	KBP 103G	KBP 104G	KBP 105G	KBP 106G	KBP 107G	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	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	1.0							V
Maximum DC Reverse Current @ T_A=25 °C at Rated DC Blocking Voltage @ T_A=125 °C (Note1)	I_R	10 500							uA uA
Typical Thermal resistance (Note2)	$R_{\theta JA}$ $R_{\theta JL}$	28 10							°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 0.2” x 0.2” (5 x 5mm) Copper Pads.

RATINGS AND CHARACTERISTIC CURVES (KBP101G THRU KBP107G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

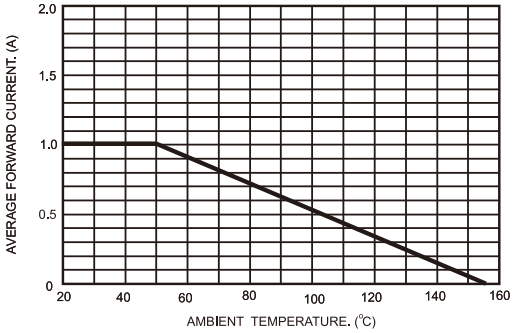


FIG.2- TYPICAL REVERSE CHARACTERISTICS

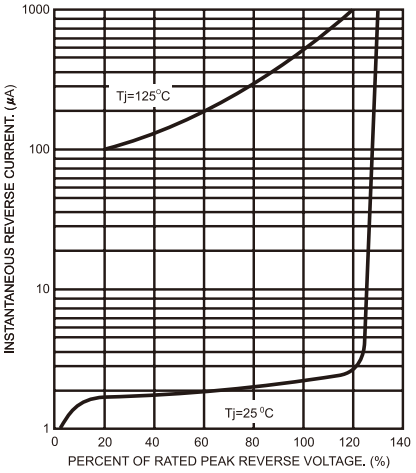


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

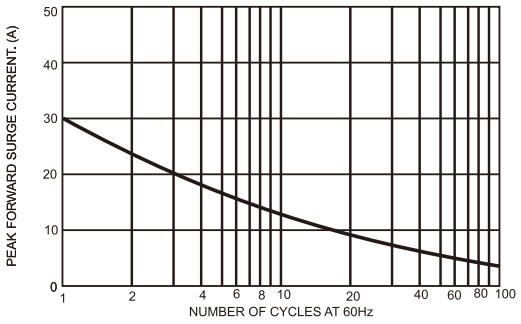


FIG.4- TYPICAL JUNCTION CAPACITANCE

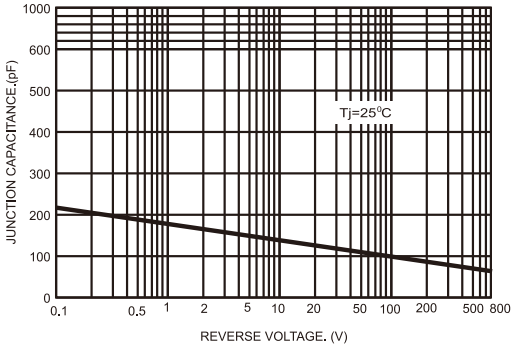


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT