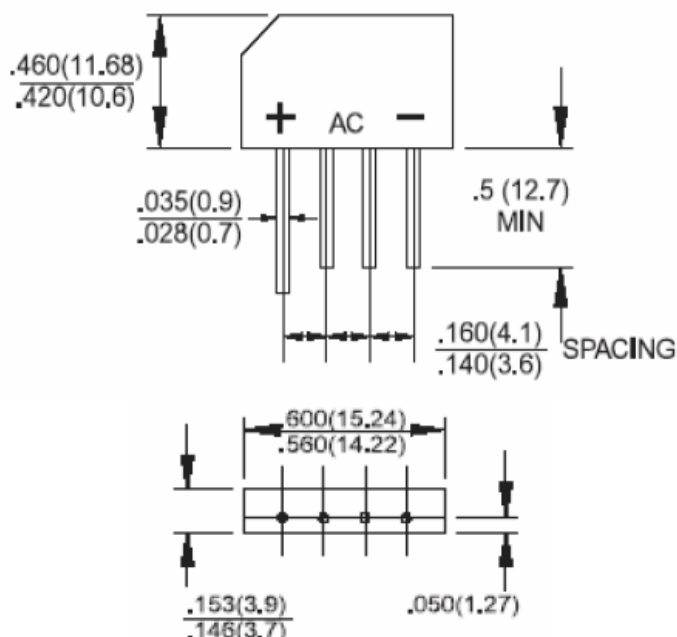



RoHS
COMPLIANCE

KBP


Features

- ✧ UL Recognized File #E-326243
- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ High case dielectric strength
- ✧ Plastic material has Underwriters laboratory flammability Classification 94V-0
- ✧ Typical IR less than 0.1uA
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed: 260°C/10 seconds at 5 lbs.(2.3kg) tension
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

- ✧ Case: Molded plastic body
- ✧ Terminals: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208
- ✧ Weight: 1.54 grams (0.055 ounce)
- ✧ Mounting position : Any

Dimensions in inches and (millimeters)

Marking Diagram



- KBP30XG = 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 301G	KBP 302G	KBP 303G	KBP 304G	KBP 305G	KBP 306G	KBP 307G	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 Rectified Current @TA=50°C	$I_{(AV)}$	3							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80							A
Rating of fusing (t<8.3ms)	I^2T	26.5							A ² S
Maximum Instantaneous Forward Voltage @ 3 A	V_F	1.1							V
Maximum DC Reverse Current @TA=25°C at Rated DC Block Voltage @ TA=125 °C	I_R	10 500							uA
Typical Junction Capacitance per leg (Note 1)	C_j	215							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	30 11							°C/W
Operating Temperature Range	T_J	- 55 to + 150							°C
Storage Temperature Range	T_{STG}	- 55 to + 150							°C

Note 1 : Measured at 1MHz and applied Reverse bias of 4.0V DC

Note 2 : Unit mount on P.C.B. 0.4" x 0.4" (10mmx10mm) Copper pads, 0.375"(9.5mm) lead length

RATINGS AND CHARACTERISTIC CURVES (KBP301G THRU KBP307G)

FIG. 1 FORWARD CURRENT DERATING CURVE

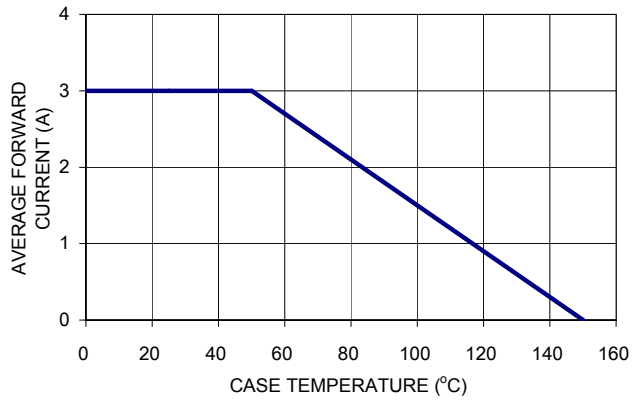


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

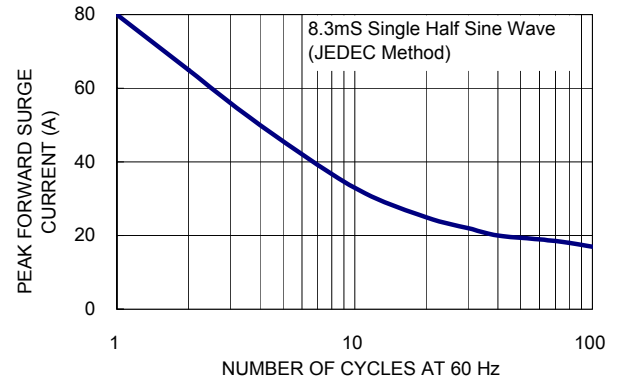


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

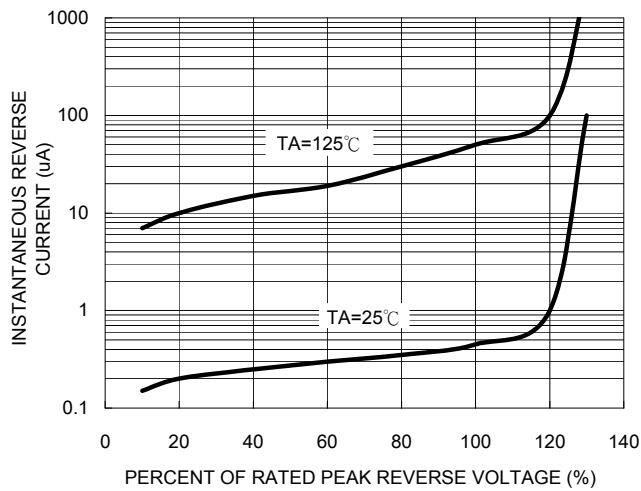


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

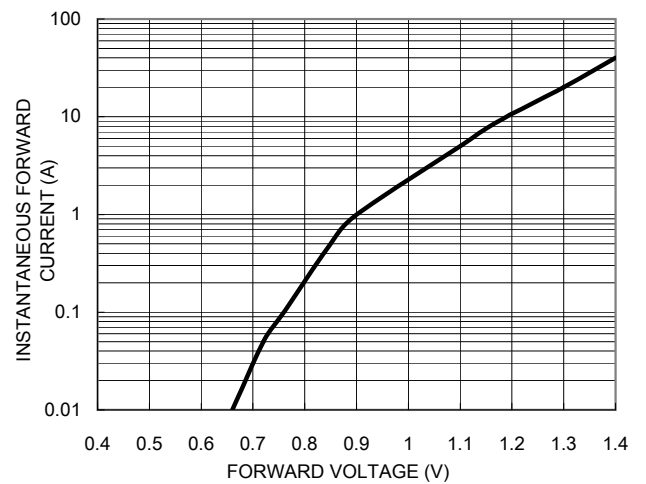
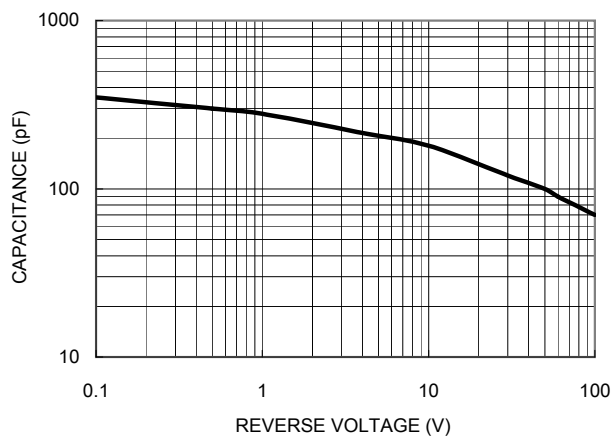


FIG. 5 TYPICAL JUNCTION CAPACITANCE



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