KBP3005 THRU KBP310

SINGLE PHASE 3.0 AMP BRIDGE RECTIFIERS

FEATURES

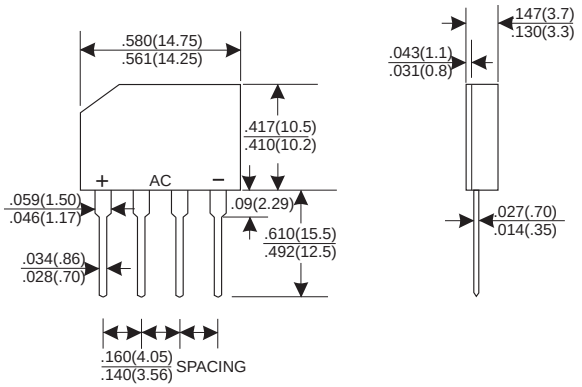
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability

MECHANICAL DATA

Case: Molded plastic, GBP
Epoxy: UL 94V-O rate flame retardant
Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
Mounting position: Any
Weight: 1.40gram
Lead Free Finish/RoHS Compliant

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
3.0 Ampere

GBP



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60H_Z, resistive or inductive load.

For capacitive load, derate current by 20%.	Symbols	*KBP3005*	*KBP301*	*KBP302*	*KBP304*	*KBP306*	*KBP308*	*KBP310*	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	**Volts**
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	**Volts**
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	**Volts**
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at T_A=50℃	$I_{(AV)}$	3.0							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60							**Amp**
Maximum Forward Voltage at 1.5A DC and 25℃	V_F	1.1							**Volts**
Maximum Reverse Current at T_A=25℃	I_R	10.0							**uAmp**
at Rated DC Blocking Voltage T_A=100℃		500							
Typical Junction Capacitance (Note 1)	C_J	25							**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	30							**℃/W**
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	11							**℃/W**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +150							**℃**

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance Junction to Ambient and form junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted.

RATING AND CHARACTERISTIC CURVES (KBP3005 THRU KBP310)

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig. 1 Forward Current Derating Curve

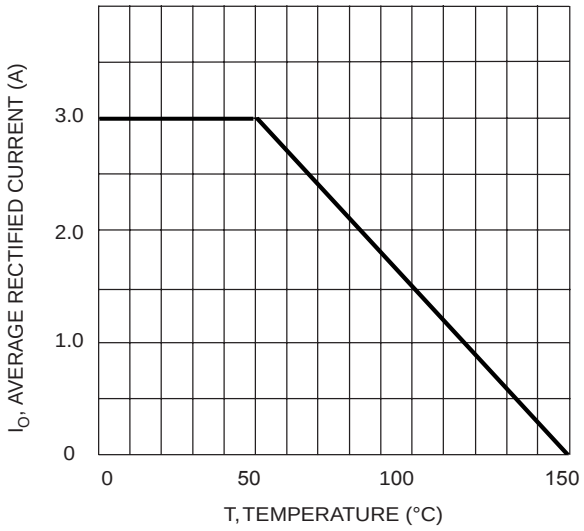


Fig. 2 Typical Fwd Characteristics

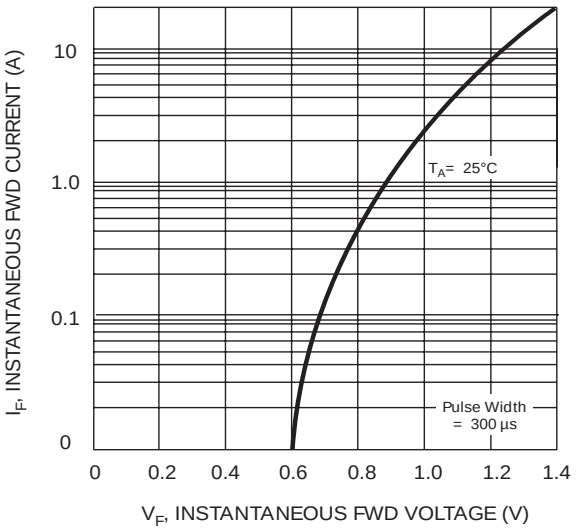


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

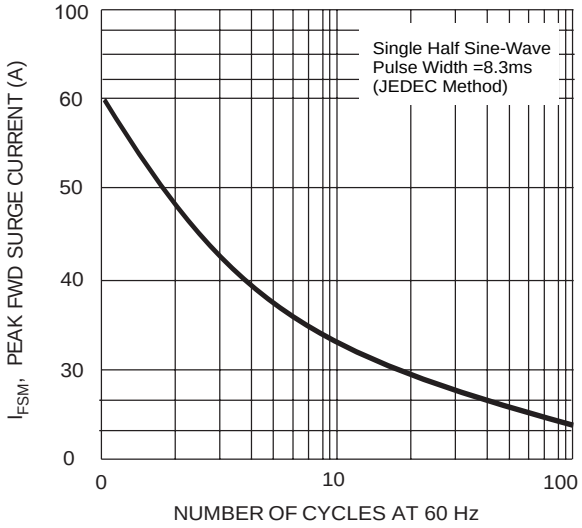


Fig. 4 Typical Junction Capacitance