



# KBP4005 THRU KBP410

## BRIDGE RECTIFIERS

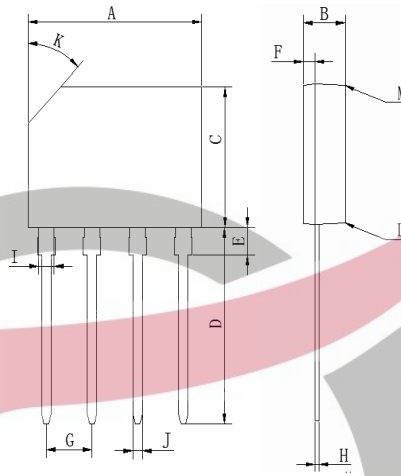
### FEATURES

- UL Recognized File # E469616
- 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, KBP  
 Epoxy: UL 94V-O rate flame retardant  
 Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed  
 Mounting position: Any  
 Weight: 0.012ounce, 0.33gram

### KBP



KBP Unit:mm		
DIM	MIN	MAX
A	14.25	14.75
B	3.35	3.65
C	10.2	10.6
D	14.3	14.8
E	1.8	2.2
F	0.8	1.1
G	3.56	4.06
H	0.3	0.55
I	1.22	1.42
J	0.76	0.86
K	2.7X45°(Typ.)	
L	-	3°
M	-	3°
All Dimensions in millimeter		

### Maximum Ratings and Electrical Characteristics

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

	Symbols	KBP4005	KBP401	KBP402	KBP404	KBP406	KBP408	KBP410	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 $T_A=50$	$I_{(AV)}$	4.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	80							Amp
Maximum Forward Voltage at 4.0A DC and 25	$V_F$	1.1							Volts
Maximum Reverse Current at $T_A=25$ at Rated DC Blocking Voltage $T_A=100$	$I_R$	10.0 500							uAmp
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	$T_J, T_{stg}$	-55 to +150							

### NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- Thermal Resistance Junction to Ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted.





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### Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Fig. 1 Forward Current Derating Curve

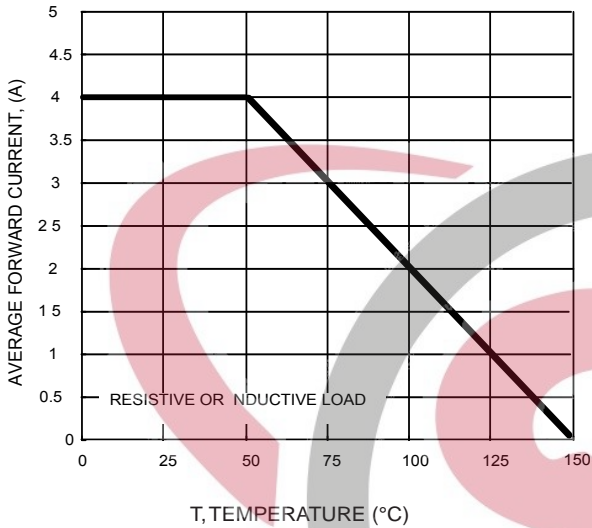


Fig. 2 Typical Fwd Characteristics

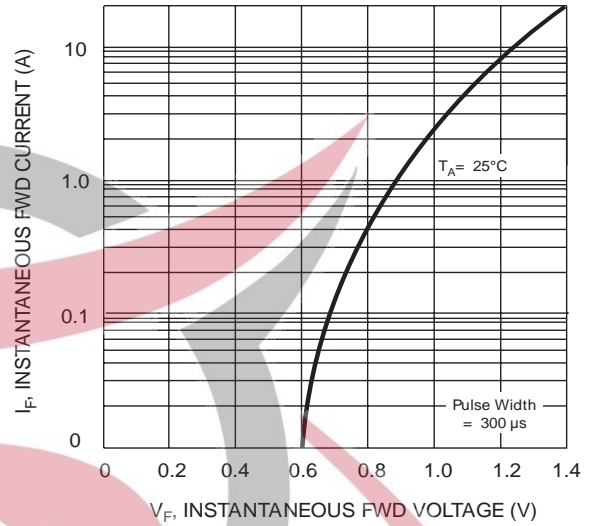


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

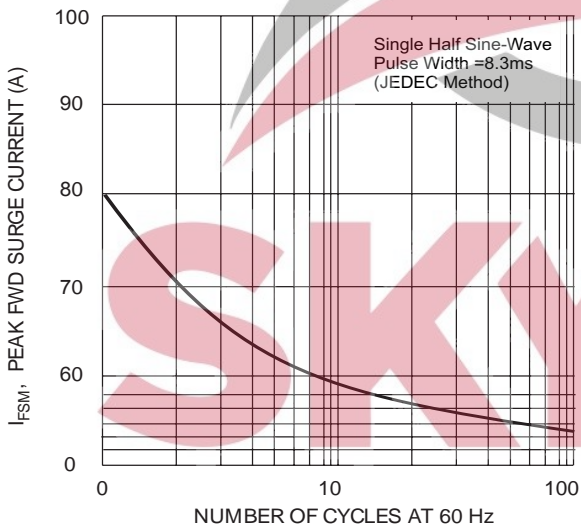


Fig. 4 Typical Junction Capacitance

