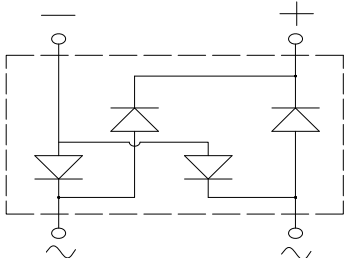
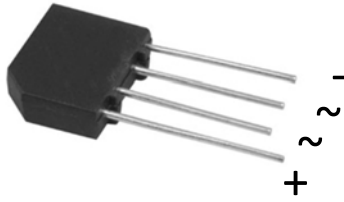


## Bridge Rectifiers



### Features

- UL recognition, file #E230084
- Ideal for printed circuit boards
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Typical Applications

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

### Mechanical Data

- **Package:** KBP  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

### ■Maximum Ratings ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310
Device marking code			KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310
Repetitive peak reverse voltage	VRRM	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, Without heatsink $T_a=30^\circ\text{C}$	$I_O$	A	3						
Surge(non-repetitive)forward current @60HZ half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$	$I_{FSM}$	A	60						
Current squared time @1ms≤t<8.3ms $T_j=25^\circ\text{C}$ , rating of per diode	$I^2t$	A <sup>2</sup> S	14.9						
Storage temperature	$T_{stg}$	°C	-55 ~+150						
Junction temperature	$T_j$	°C	-55 ~+150						

### ■Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310
Maximum instantaneous forward voltage drop per diode	$V_F$	V	$I_{FM}=3.0A$	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	$I_{RRM}$	μA	$V_{RM}=V_{RRM}$	10						

### ■Thermal Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBP3005	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310
Thermal Resistance <sup>(1)</sup>	Between junction and ambient,	$R_{\theta J-A}$	20						
	Between junction and lead	$R_{\theta J-L}$	11						

Notes  
(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.47×0.47”(12×12mm) copper pads



# KBP3005 THRU KBP310

## Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBP3005~KBP310	A1	Approximate 1.75	500	500	5000	Paper Box

## Characteristics (Typical)

FIG1:  $I_o$ - $T_a$  Curve

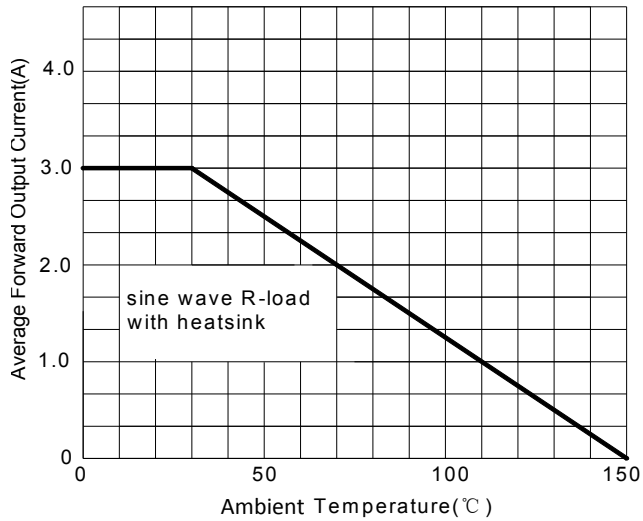


FIG2: Surge Forward Current Capability

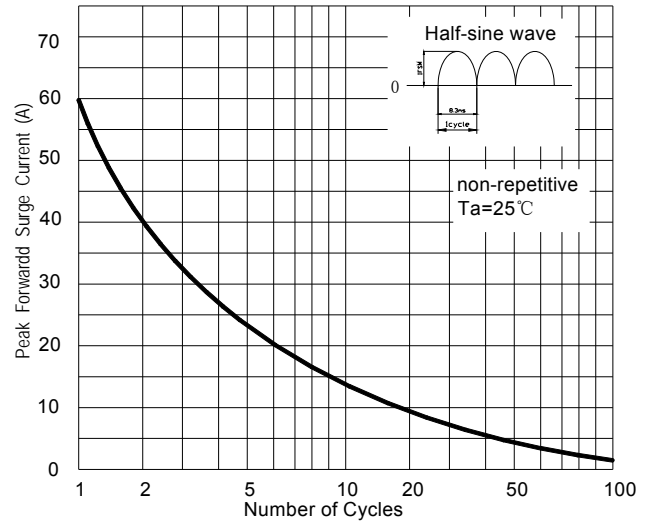


FIG3: Instantaneous Forward Voltage

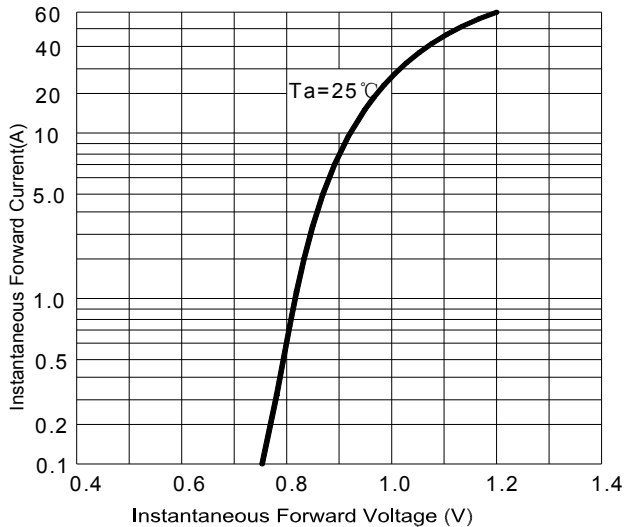
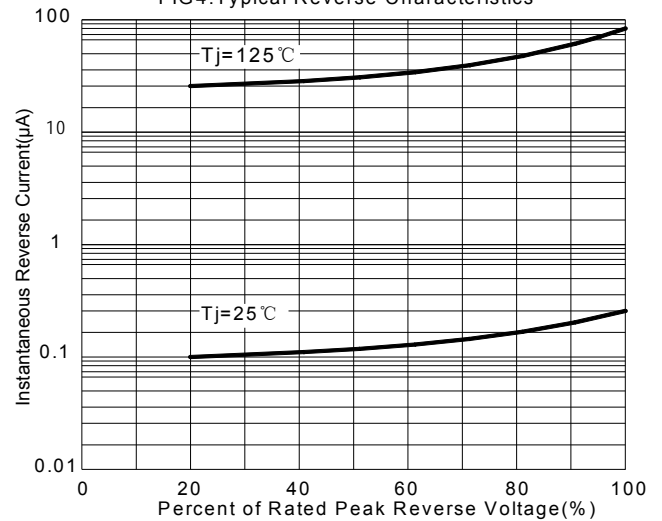


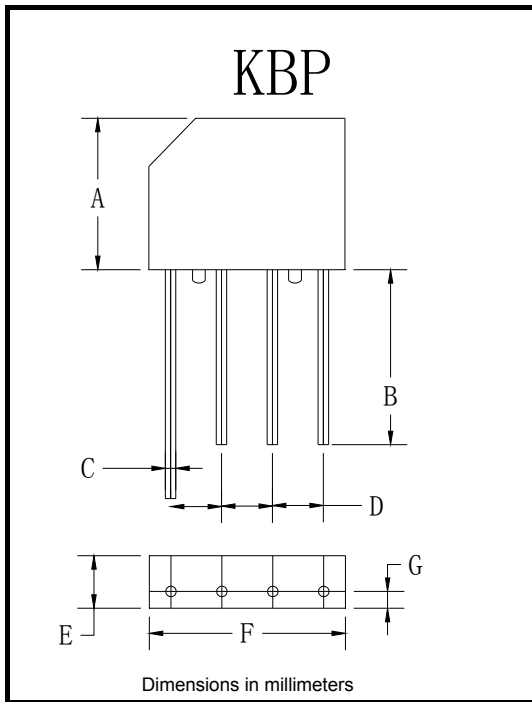
FIG4: Typical Reverse Characteristics





# KBP3005 THRU KBP310

## ■ Outline Dimensions



KBP		
Dim	Min	Max
A	11.0	11.6
B	12.7	/
C	0.7	0.9
D	3.6	4.1
E	3.7	3.95
F	14.4	15.0
G	1.10	1.27



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