

KBP306 THRU KBP310

KBP 3.0 AMP Plastic-Encapsulate Bridge Rectifier

KBP Plastic-Encapsulate Bridge Rectifier

Features

- Ideal for printed circuit board
- Low forward voltage
- Low leakage current
- Reliable low cost construction utilizing molded plastic technique
- High temperature soldering guaranteed: 260/10 seconds at 5lbs., (2.3kg) tension

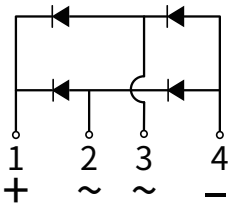
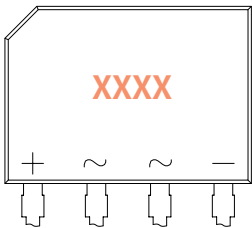
Applications

General purpose 1 phase Bridgerectifier applications

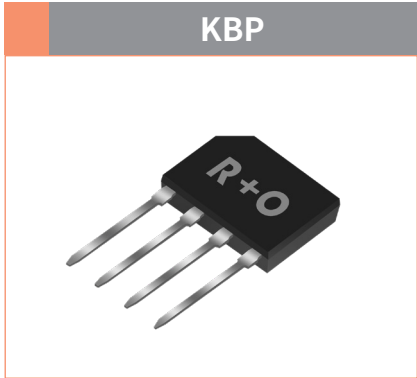
Mechanical Data

- Case: KBP
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750,Method 2026
- Polarity: Cathode line denotes the cathode end

Function Diagram



Reverse Voltage
600-1000 V
Forward Current
3.0 Ampere



Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBP306	KBP307	KBP308	KBP310
Device marking code			KBP306	KBP307	KBP308	KBP310
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	600	700	800	1000
Maximum RMS Voltage	V_{RMS}	V	420	490	560	700
Maximum DC blocking Voltage	V_{DC}	V	600	700	800	1000
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load,TL (Fig.1)	$I_{F(AV)}$	A	3.0			
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	60			
Rating for fusing (t=8.3ms, Ta=25 °C)	I^2t	A ² S	15			
Storage temperature	T_{stg}	°C	-55 ~ +150			
Junction temperature	T_j	°C	-55 ~ +150			
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	30			
	$R_{\theta J-L}$	°C /W	16			

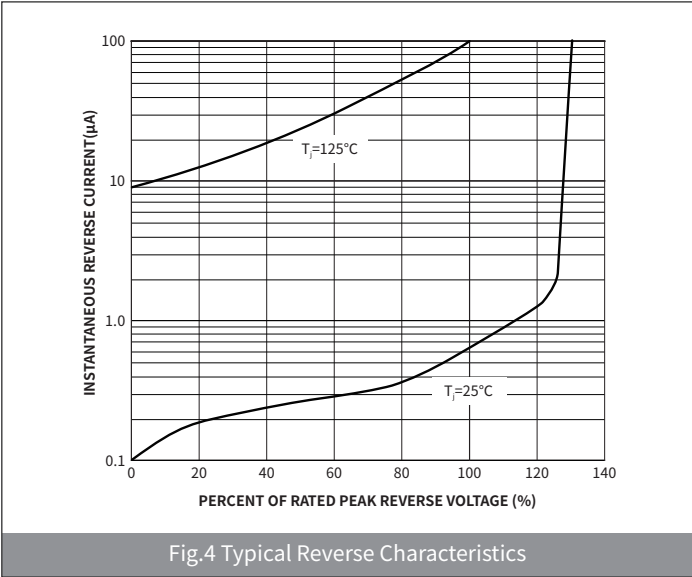
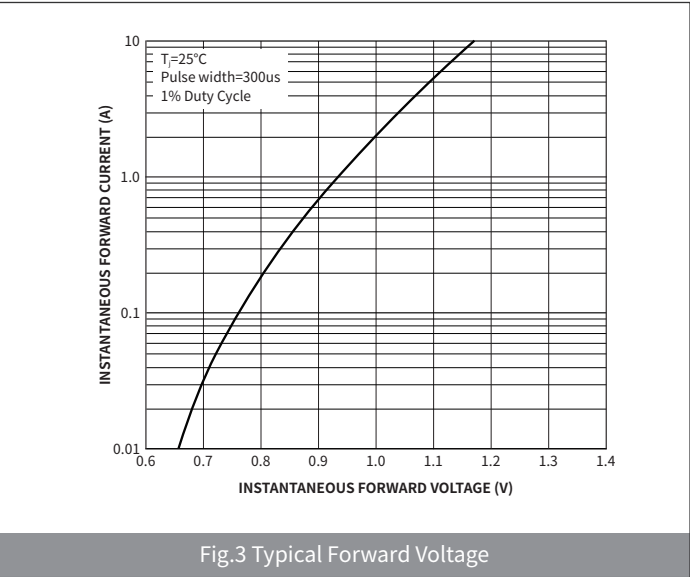
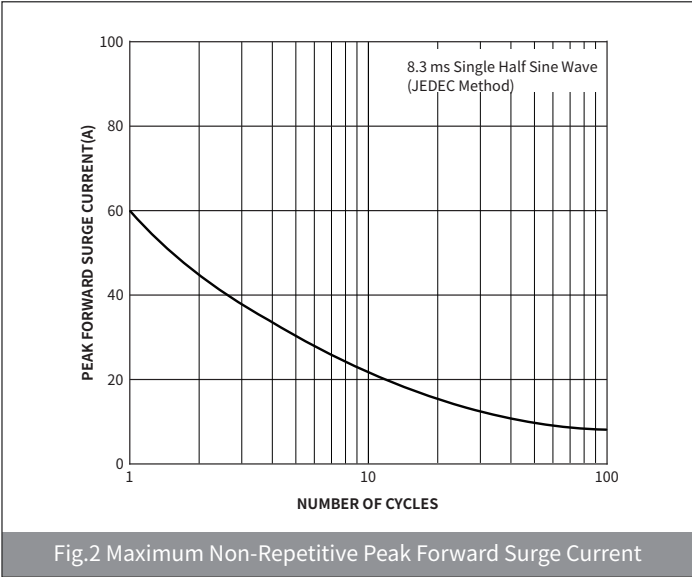
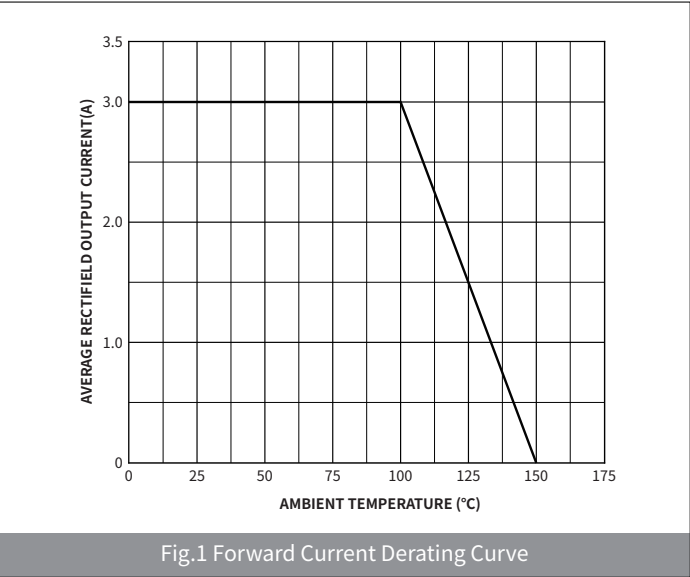
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Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	KBP306	KBP307	KBP308	GBP310
Maximum instantaneous forward voltage	$I_F=3.0A$	V_F	V	1.1			
Maximum DC reverse currentat rated DC blocking voltage	$V_R=V_{DC}, T_A=25^{\circ}C$	I_{R1}	μA	10			
	$V_R=V_{DC}, T_A=100^{\circ}C$	I_{R2}		500			
Typical junction capacitance	4.0V DC,1MHz	C_J	pF	25			

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



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● Ordering Information

PACKAGE	UNIT WEIGHT(g)	BOX(pcs)	CARTON(pcs)
KBP	1.58	500	5000

● Package Outline Dimensions (KBP)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	14.15	14.75	0.557	0.580
B	10.20	10.60	0.410	0.417
C	1.80	2.20	0.071	0.086
D	14.50	15.50	0.571	0.610
E	1.17	1.42	0.046	0.056
F	0.76	0.86	0.030	0.034
G	3.56	4.06	0.140	0.160
H	2.90	3.20	0.114	0.126
I	0.70	1.10	0.028	0.043
J	0.30	0.60	0.012	0.024