

3.0A GLASS PASSIVATED BRIDGE RECTIFIER

Reverse Voltage - 100 to 1000 V

Forward Current – 3.0A

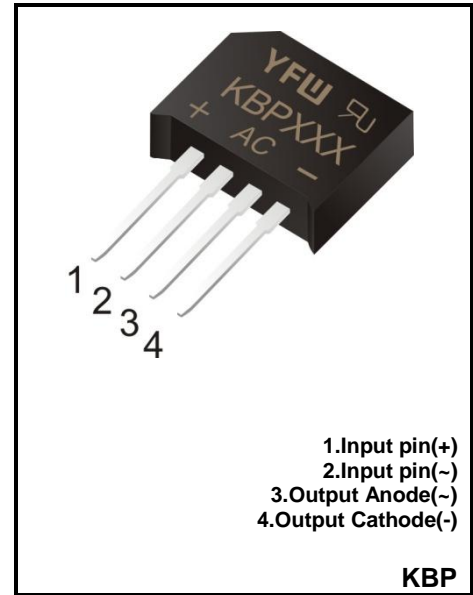


FEATURES

- ◆ High current capability
- ◆ Low forward voltage drop
- ◆ Glass Passivated Chip Junction
- ◆ Low power loss, high efficiency
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: KBP
- ◆ Terminals: Solderable per MIL-STD-202, Method 208
- ◆ Approx. Weight: 1.52g / 0.05oz



Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	KBP301	KBP302	KBP304	KBP306	KBP308	KBP310	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Average Rectified Output Current	$I_{(AV)}$	3						A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	55						A
Peak Forward Surge Current @ $T_j = 25\text{ }^{\circ}\text{C}$ 1.0ms single half sine-wave	I_{FSM}	110						A
Forward Voltage per element @ $I_F = 3.0\text{A}$ and $25\text{ }^{\circ}\text{C}$	V_F	1.1						V
Maximum DC Reverse Current @ $T_j = 25\text{ }^{\circ}\text{C}$ at Rated DC Blocking Voltage @ $T_j = 125\text{ }^{\circ}\text{C}$	I_R	5 500						μA
I ² t Rating for Fusing(3ms≤t≤8.3ms)	I^2t	17.5						A ² S
Typical Junction Capacitance ^(Note1)	C_j	60						pF
Typical Thermal Resistance ^(Note2)	$R_{\theta JA}/ R_{\theta JC}$	30/10						$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						$^{\circ}\text{C}$

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) Thermal Resistance Junction to Case, Lead and Ambient.

FIG.1- FORWARD CURRENT DERATING CURVE

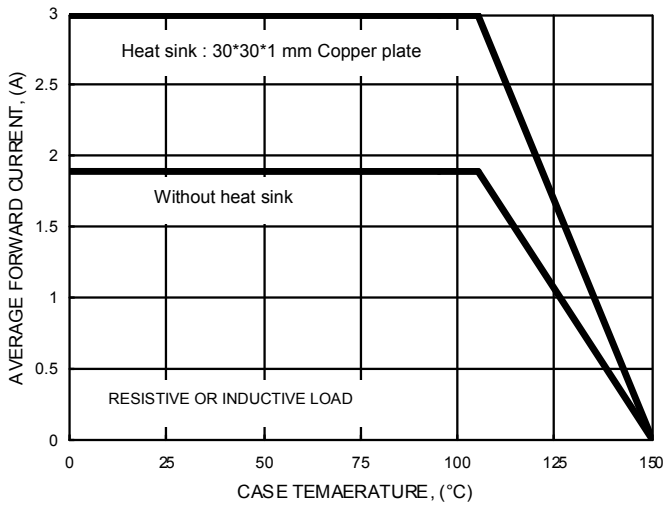


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

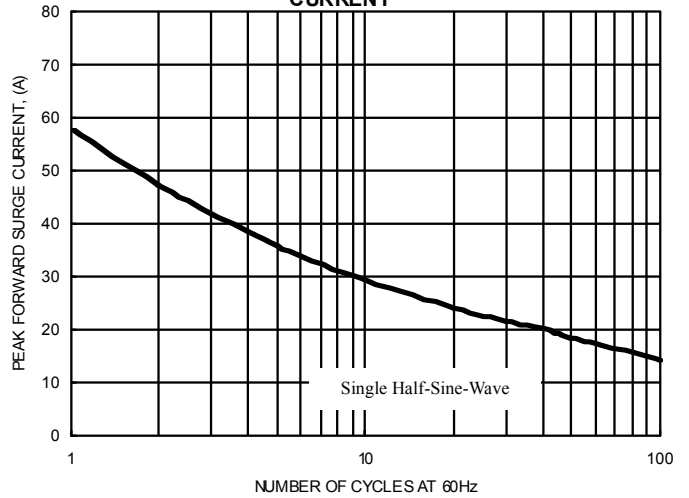


FIG.3- TYPICAL JUNCTION CAPACITANCE

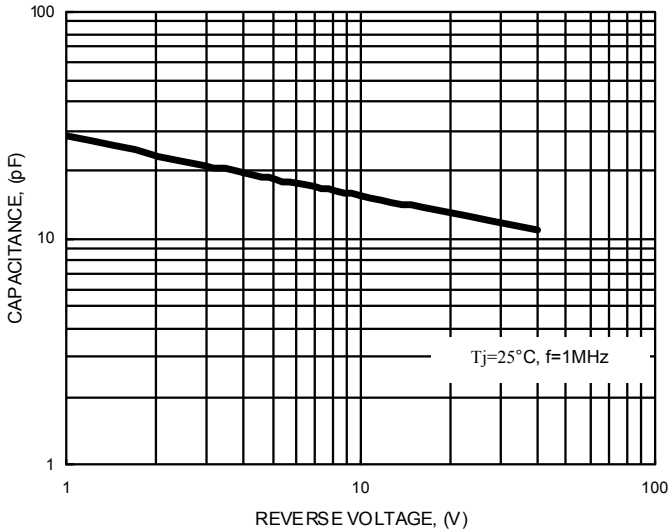


FIG.4- TYPICAL FORWARD CHARACTERISTICS

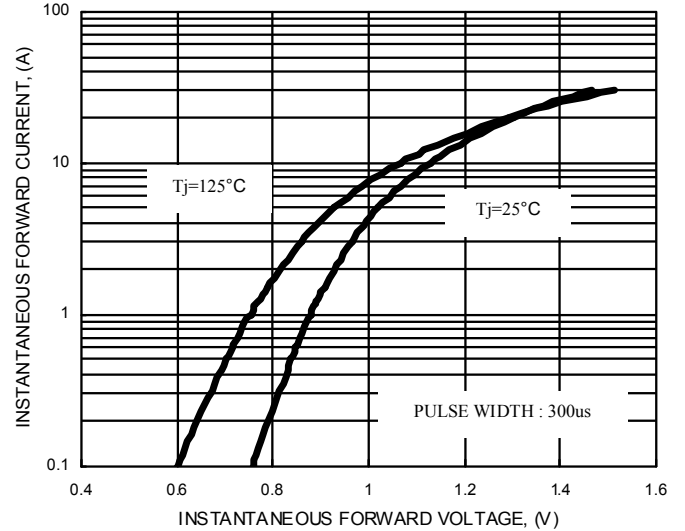
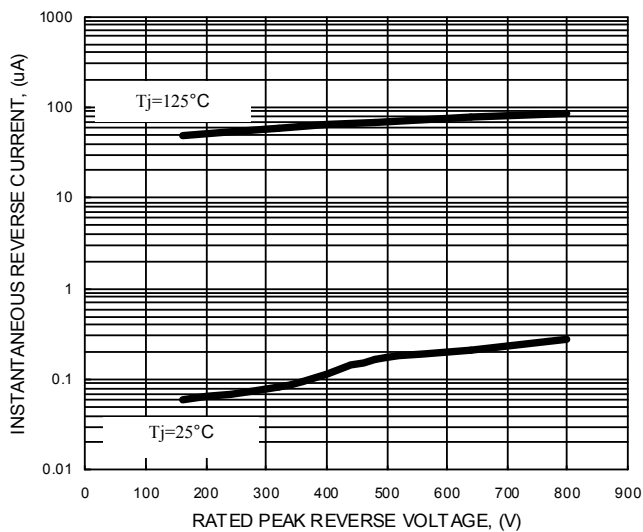
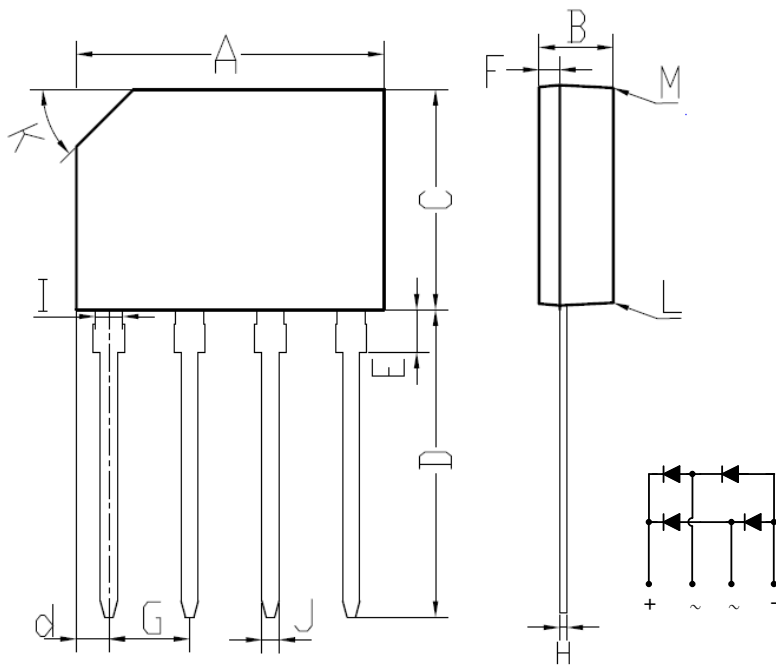


FIG.5- TYPICAL REVERSE CHARACTERISTICS



Package Outline

KBP



KBP		
DIM.	MIN.	MAX.
A	14.25	14.75
B	3.35	3.65
C	10.20	10.60
D	14.25	14.73
d	1.40	1.70
E	1.80	2.20
F	0.80	1.10
G	3.56	4.06
H	0.35	0.55
I	1.22	1.42
J	0.76	0.86
K	2.7 x 45° (Typ)	
L	#	3°
M	#	2°
All Dimensions in millimeter		

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
KBP	BOX	500	EIA-481-1