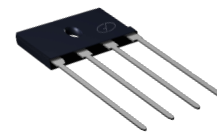


# KBF301 thru KBF310

Glass Passivated Single-Phase Bridge Rectifiers  
 Reverse Voltage 100~1000V Output Current 3.0A

## Features

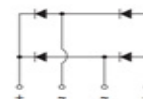
- Glass passivated Bridge Rectifiers
- Ideal for PCB
- High surge current capability
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition



Package: KBF

## Mechanical Data

- Case:KBF,Molding compound meets UL 94V-0 flammability rating  
 Base P/N with suffix'E' on packing code-halogen free
- Terminals:Matte tin plated leads,solderable per MII-STD-750 Method 2026,J-STD-002 and JESD22-B102,  
 meets JESD 201 class 1A whisker test



Schematic Diagram

## Applications

General purpose use in AC-to-DC bridge full wave rectification for TV, monitors, SMPS, adapters, printers, audio equipment, and home applications applications.

## Maximum Ratings (T<sub>A</sub> = 25 °C unless otherwise noted)

Parameter	Symbol	KBF301	KBF302	KBF304	KBF306	KBF308	KBF310	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	100	200	400	600	800	1000	V
Maximum Average Output Rectified Current	I <sub>O(AV)</sub>	3.0						A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load	I <sub>FSM</sub>	80						A
Rating for Fusing (t≤8.3ms)	I <sup>2</sup> t	27						A <sup>2</sup> s
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to 150						°C

## Electrical Characteristics (T<sub>A</sub> = 25 °C unless otherwise noted)

Parameter	Test Conditions	Symbol	KBF301	KBF302	KBF304	KBF306	KBF308	KBF310	Unit
Maximum Instantaneous Forward Voltage	I <sub>F</sub> =1.0A	V <sub>F</sub>	0.95						V
	I <sub>F</sub> =3.0A		1.1						
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>A</sub> =25°C	I <sub>R</sub>	5.0						μA
	T <sub>A</sub> =125°C		200						
Junction Capacitance	4.0 V, 1 MHz	C <sub>J</sub>	24.2						pF

## Thermal Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	KBF301	KBF302	KBF304	KBF306	KBF308	KBF310	Unit
Typical Thermal Resistance <sup>1)</sup>	Junction to Ambient	R <sub>θJA</sub>	30						°C/W
	Junction to Case	R <sub>θJC</sub>	8						

Note:1) The thermal resistance from junction to ambient and case, mounted on glass epoxy FR-4 P.C.B

## Ratings and Characteristics Curves

(T<sub>A</sub> = 25°C unless otherwise noted)

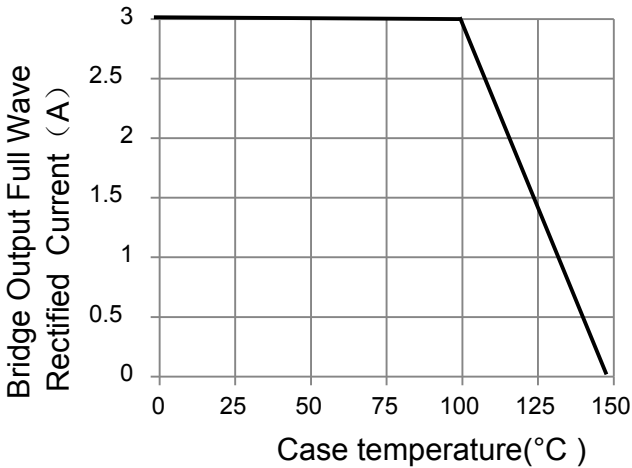


Figure 1. Forward Current Derating Curve

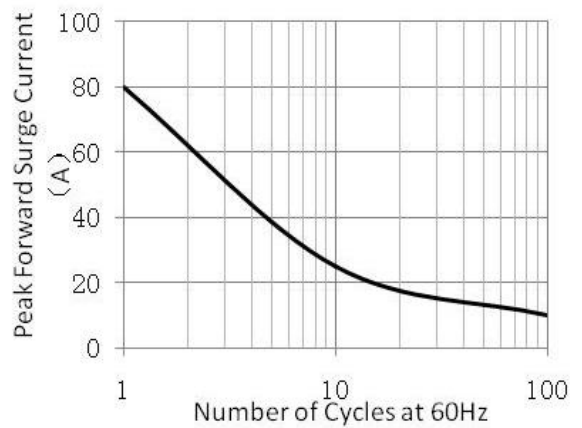


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

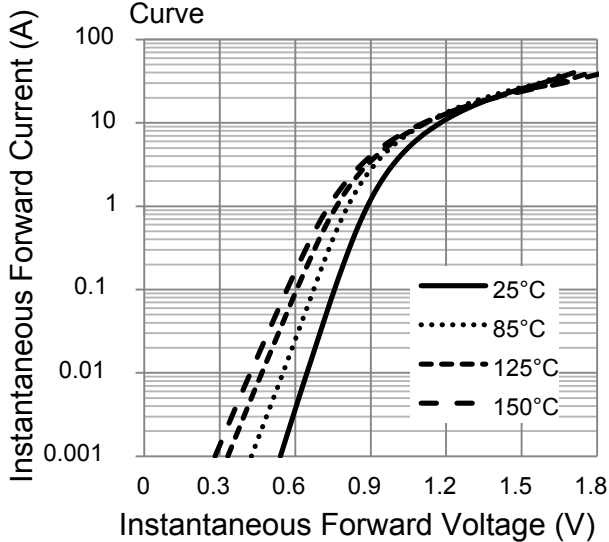


Figure 3. Typical Instantaneous Forward Characteristics

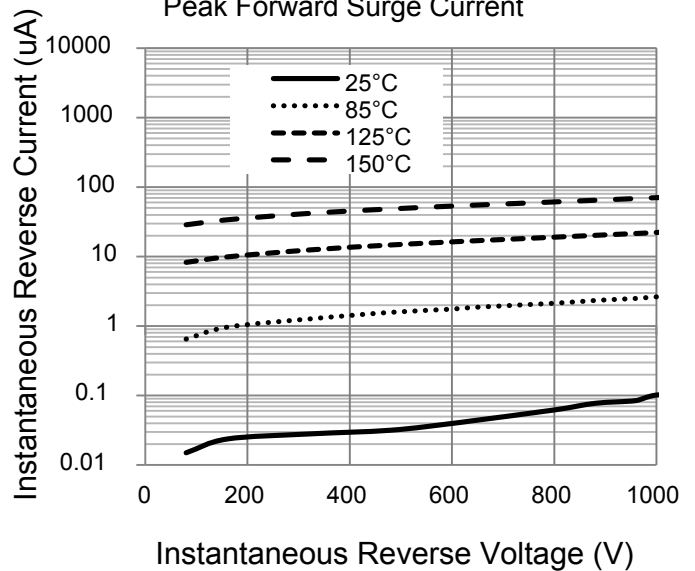


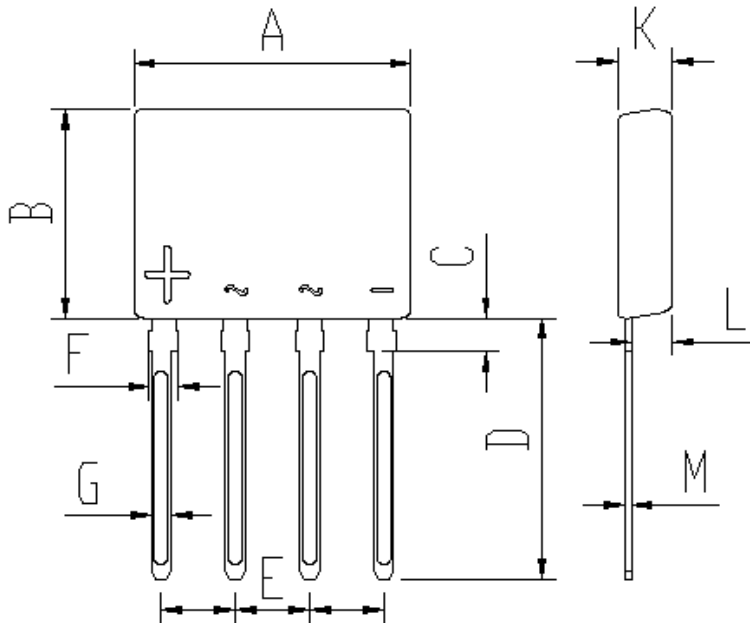
Figure 4. Typical Reverse Characteristics

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 Reverse Voltage 100~1000V Output Current 3.0A

## Package Outline Dimensions

**KBF**



Unit: mm

	Min	Max
A	13.95	14.45
B	10.80	11.20
C	1.75 Typical	
D	13.50	14.00
E	3.61	4.01
F	1.30	1.70
G	0.90	1.10
K	2.65	2.95
L	2.00	2.20
M	0.26	0.46