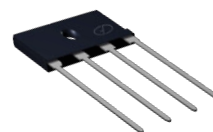


KBF401 thru KBF410

Glass Passivated Single-Phase Bridge Rectifiers
 Reverse Voltage 100 to 1000V Output Current 4.0A

Features

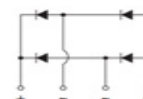
- Ideal for PCB
- High surge current capability
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition



Package: KBF

Mechanical Data

- Case: KBF. Molding compound meets UL 94V-0 flammability rating.
- Terminals: Matte tin plated leads, solderable per MIL-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, monitor, SMPS, adapter, printer, audio equipment, and home applications application.

Maximum Ratings (T_A =25°C unless otherwise noted)

Parameter	Symbol	KBF401	KBF402	KBF404	KBF406	KBF408	KBF410	Unit
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
Maximum Average Rectified Rectified Output Current (With Heatsink)	I _{F(AV)}	4						A
Maximum Average Rectified Rectified Output Current (Without Heatsink)		2						
Peak Forward Surge Forward Current 8.3ms Single Half Sine-Wave Superimposed On Rated Load	I _{FSM}	130						A
Rating for Fusing t ≤ 8.3ms	I ² t	70						A ² S
Typical Junction Capacitance @ 4V, 1MHz	C _J	34						pF
Thermal Resistance, Junction to Ambient ¹	R _{θJA}	30						°C/W
Thermal Resistance, Junction to Case ¹	R _{θJC}	8						
Junction Temperature	T _J	-55 to +150						°C
Storage Temperature	T _{STG}	-55 to +150						°C

Electrical Characteristics (T_A =25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	KBF401	KBF402	KBF404	KBF406	KBF408	KBF410	Unit
Maximum Instantaneous Forward Voltage	I _F =2A	V _F	1						V
	I _F =4A		1.1						
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A =25°C	I _R	5						uA
	T _A =125°C		200						

Note:

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

KBF401 thru KBF410

Glass Passivated Single-Phase Bridge Rectifiers
 Reverse Voltage 100 to 1000V Output Current 4.0A

Ratings and Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

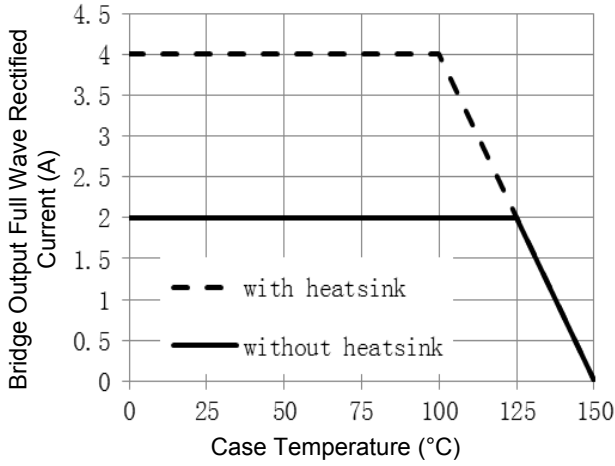


Figure 1. Forward Current Derating Curve

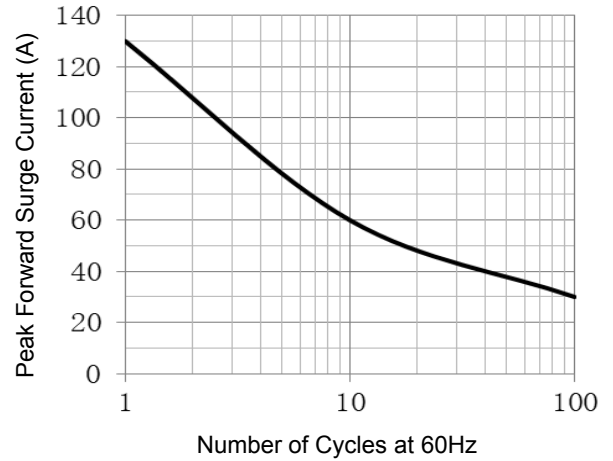


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

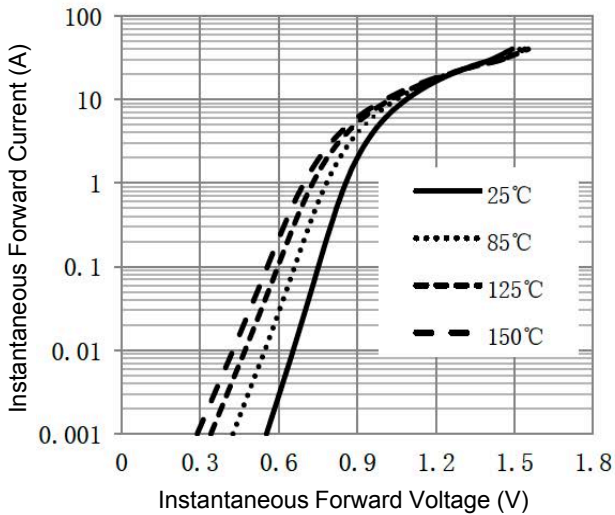


Figure 3. Typical Instantaneous Forward Characteristics

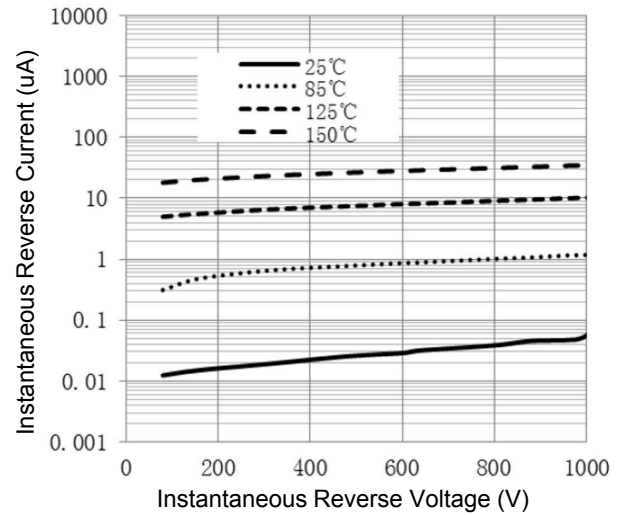
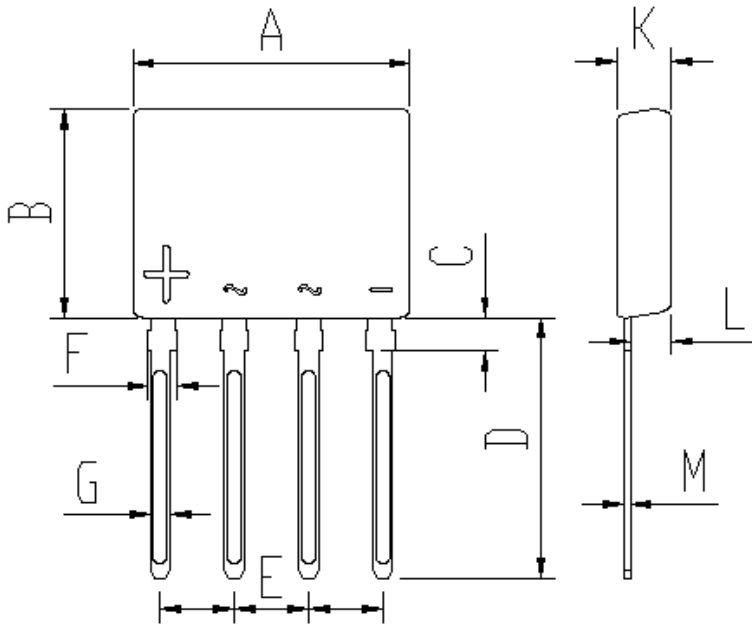


Figure 4. Typical Reverse Characteristics

KBF401 thru KBF410

Glass Passivated Single-Phase Bridge Rectifiers
 Reverse Voltage 100 to 1000V Output Current 4.0A

Package Outline Dimensions (KBF)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	13.950	14.450	0.549	0.569
B	10.800	11.200	-	0.441
C	1.750 TYP		0.069 TYP	
D	13.500	14.000	0.531	0.551
E	3.610	4.010	0.142	0.158
F	1.300	1.700	0.051	0.067
G	0.800	1.100	0.031	0.043
K	2.650	2.950	0.104	0.116
L	2.000	2.200	0.079	0.087
M	0.260	0.460	0.010	0.018