

Reverse Voltage 100~1000V Output Current 4.0A

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



KBF

Typical Applications

- General purpose use in ac-to-dc bridge full wave rectification for TV, Monitor, SMPS, Adapter, Printer, Audio equipment, and Home Applications application

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

Maximum Ratings (TA = 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 output rectified current	$I_{F(AV)}^1$	4.0						A	
	$I_{F(AV)}^2$	2.0							
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	130						A	
Rating for fusing ($t \leq 8.3ms$)	I^2t	70						A ² s	
Operating junction and storage temperature range	T_J, T_{STG}	-55 to 150						°C	
Typical junction capacitance	4.0 V, 1 MHz	C_J	34						pF

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

Parameter	Test Conditions	Symbol	KBF401	KBF402	KBF404	KBF406	KBF408	KBF410	Unit
Maximum instantaneous forward voltage	I _F =2 A	V _F	1.0						Volts
	I _F =4 A		1.1						
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	I _R	5.0						μA
	TA=125°C		200						
Typical thermal resistance ¹⁾	junction to ambient	R _{θJA}	30						°C/W
	junction to case	R _{θJC}	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

(TA = 25°C unless otherwise noted)

Figure 1. Forward Current Derating Curve

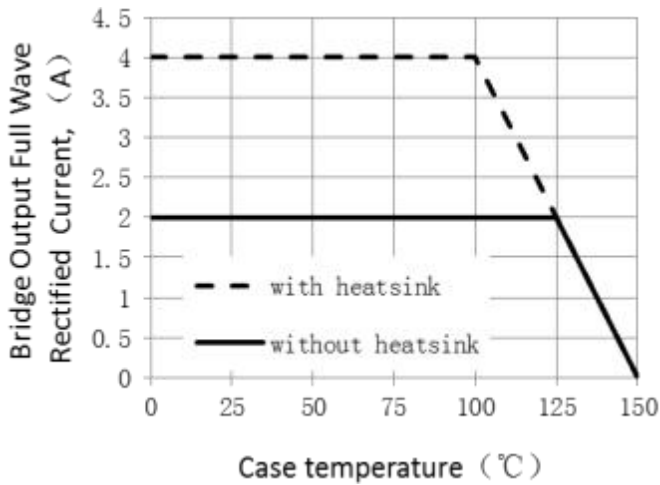


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

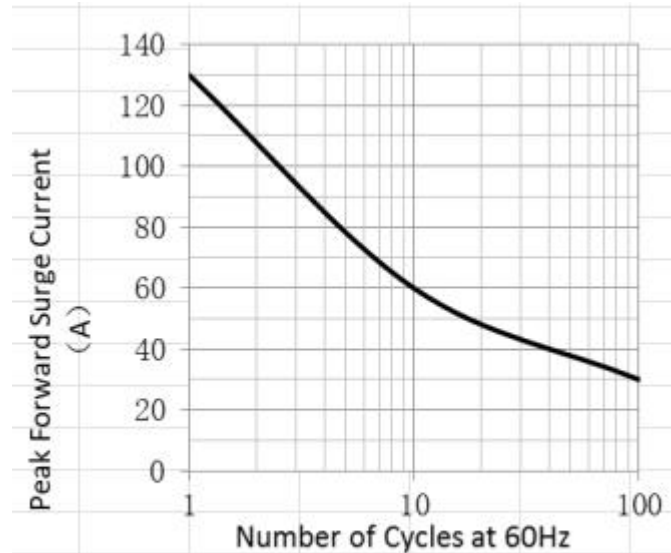


Figure 3. Typical Instantaneous Forward Characteristics

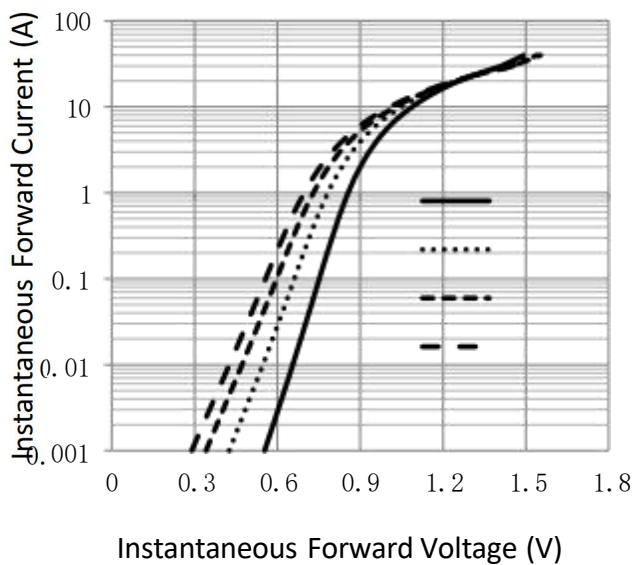
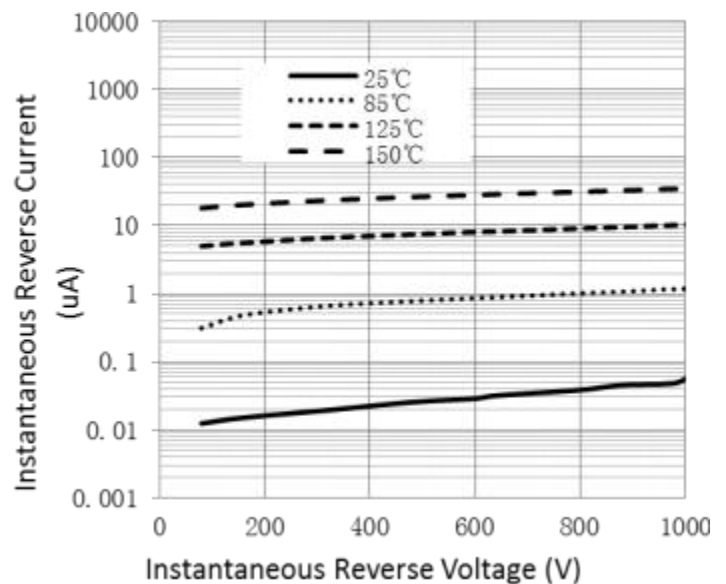


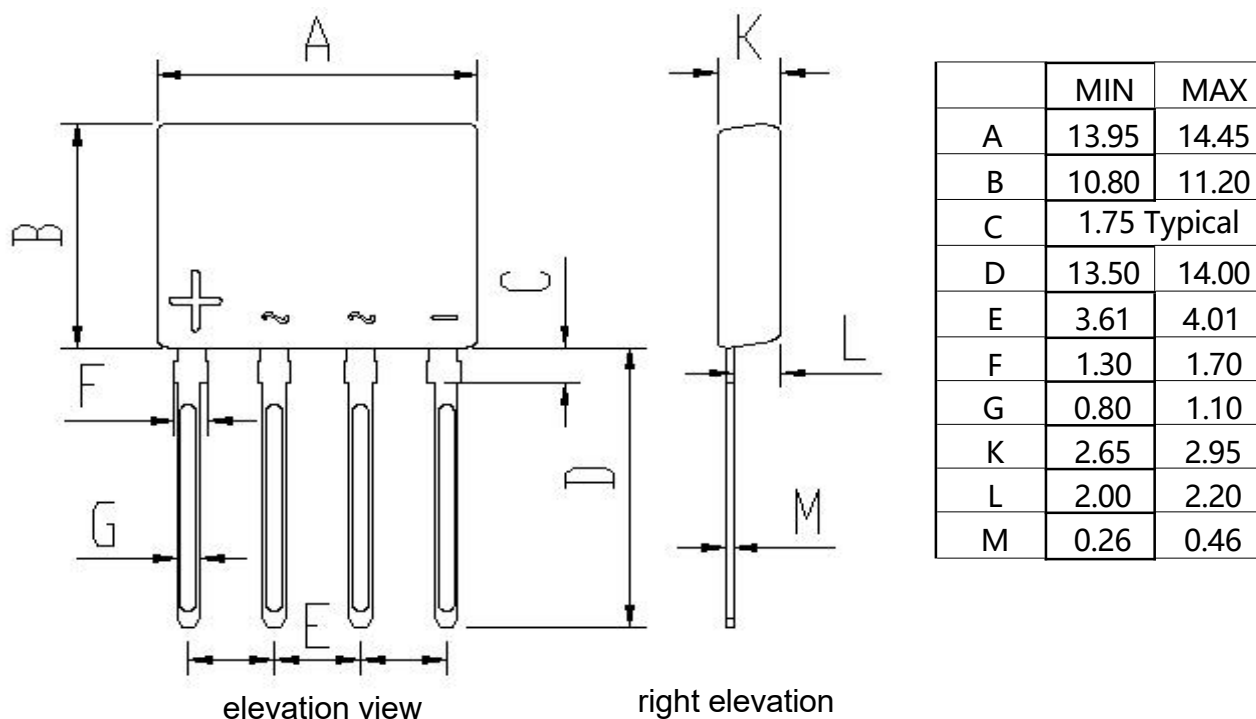
Figure 4. Typical Reverse Characteristics



Package Outline Dimensions

Unit:mm

First angle projection



Revision History

Document Version	Date of release	Discription of changes
Rev.A	2021/3/1	Released Datasheet
Rev.B	2023/12/8	Modify document format

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