

KBJ Plastic-Encapsulate Bridge Rectifier

● Features

- Ideal for printed circuit board
- Small size, simple installation
- High surge current capability
- Reliable low cost construction utilizing molded plastic technique
- High temperature soldering guaranteed: 260/10 seconds at 5lbs., (2.3kg) tension

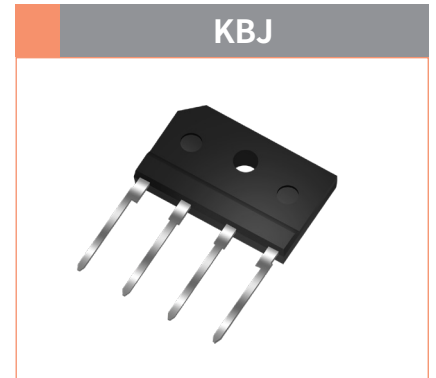
Reverse Voltage
50-1000 V
Forward Current
10.0 Ampere

● Applications

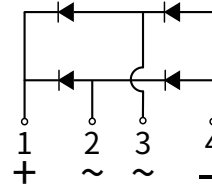
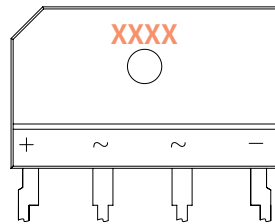
General purpose 1 phase Bridgerectifier applications

● Mechanical Data

- Case: KBJ
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



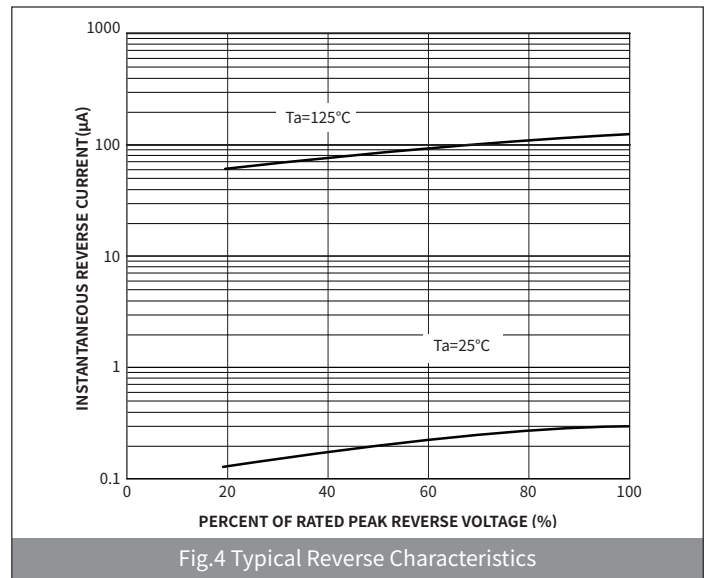
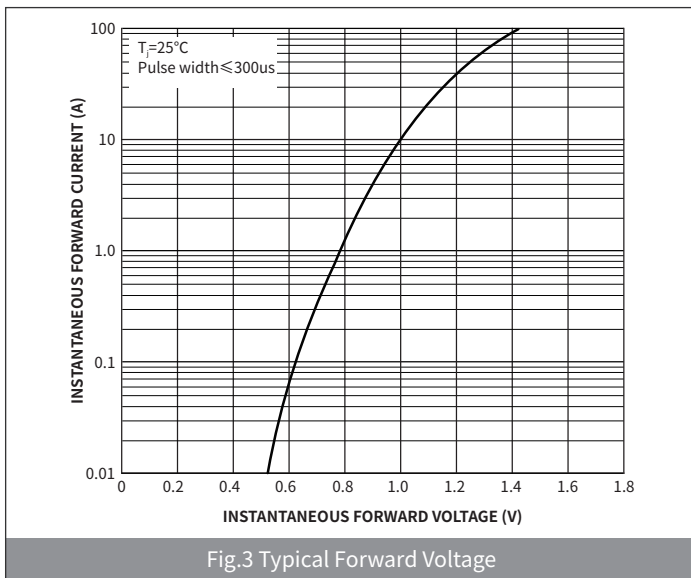
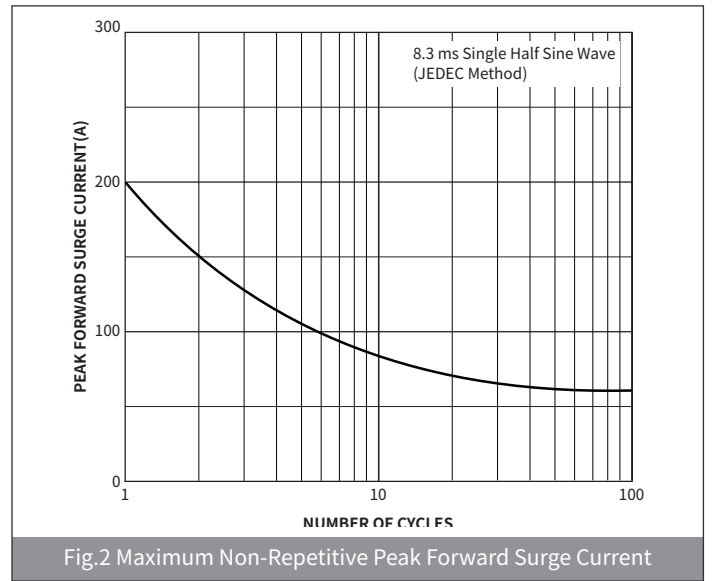
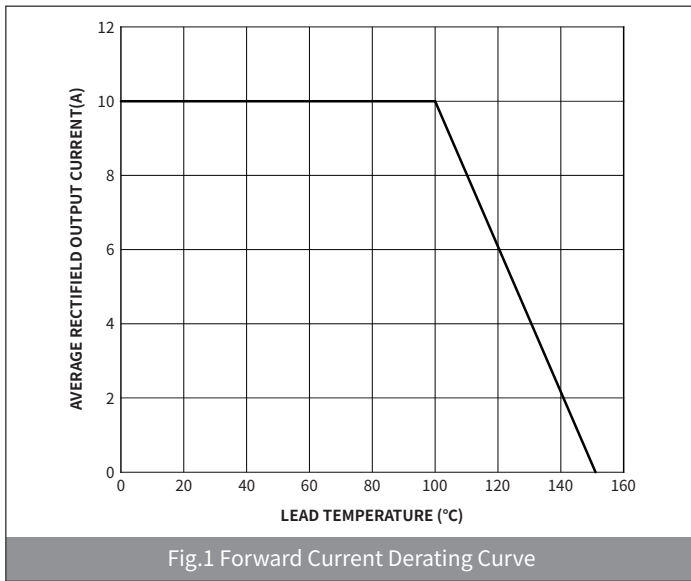
● Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBJ10005	KBJ1001	KBJ1002	KBJ1004	KBJ1006	KBJ1008	KBJ1010
Device marking code			KBJ10005	KBJ1001	KBJ1002	KBJ1004	KBJ1006	KBJ1008	KBJ1010
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Maximum Average Forward Rectified Current @60Hz sinewave, Resistance load, TL (Fig.1)	$I_{F(AV)}$	A	10.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	200						
Rating for fusing (t=8.3ms, Ta=25 °C)	I^2t	A ² S	166						
Storage temperature	T_{stg}	°C	-55 ~ +150						
Junction temperature	T_j	°C	-55 ~ +150						
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	30						
	$R_{\theta J-C}$	°C /W	4.0						

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	KBJ10005	KBJ1001	KBJ1002	KBJ1004	KBJ1006	KBJ1008	KBJ1010
Maximum instantaneous forward voltage	$I_F=5A$	V_F	V							1.1
Maximum DC reverse current at 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							9

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



KBJ10005 THRU KBJ1010

KBJ 10.0 AMP Plastic-Encapsulate Bridge Rectifier

● Ordering Information

PACKAGE	UNIT WEIGHT(g)	BOX(pcs)	CARTON(pcs)
KBJ	4.05	250	2500

● Package Outline Dimensions (KBJ)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	24.70	25.30	0.972	0.996
B	1.05	1.45	0.041	0.057
C	1.50	1.90	0.059	0.074
D	0.90	1.10	0.035	0.043
E	7.30	7.70	0.287	0.303
F	14.70	15.30	0.579	0.602
G	3.80	4.20	0.150	0.165
H	3.30	4.0	0.130	0.157
I	3.10	3.40	0.122	0.134
J	4.40	4.80	0.173	0.189
K	3.40	3.80	0.134	0.150
L	3.20	3.40	0.126	0.134
M	0.40	0.60	0.015	0.023
N	17.00	18.00	0.669	0.709
O	9.30	9.70	0.366	0.382