

## 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

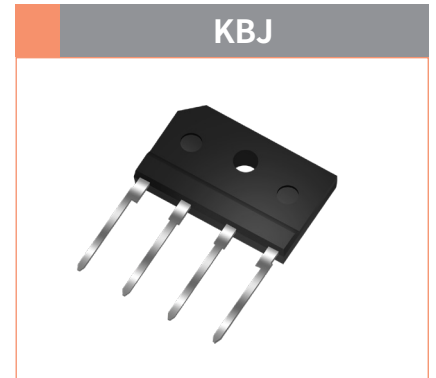
**Reverse Voltage**  
50-1000 V  
**Forward Current**  
4.0 Ampere

### ● Applications

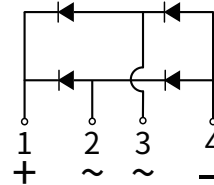
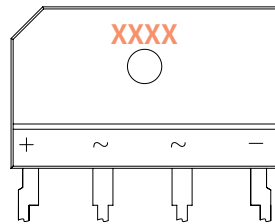
General purpose 1 phase Bridgerectifier applications

### ● 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



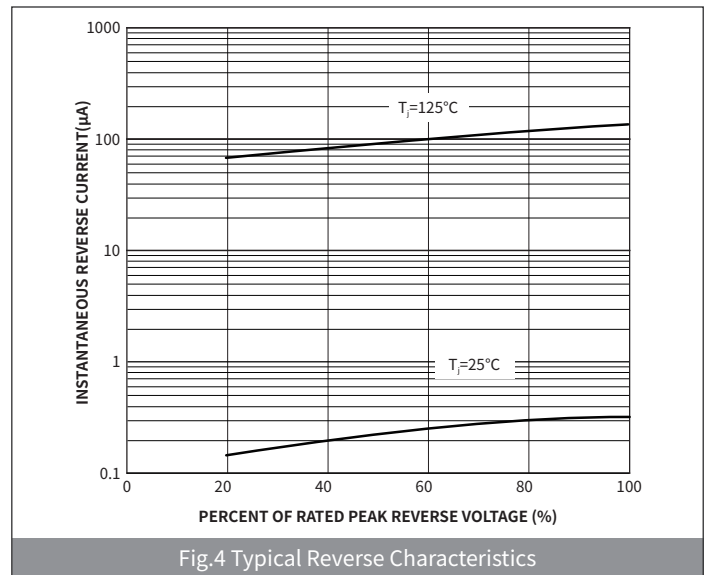
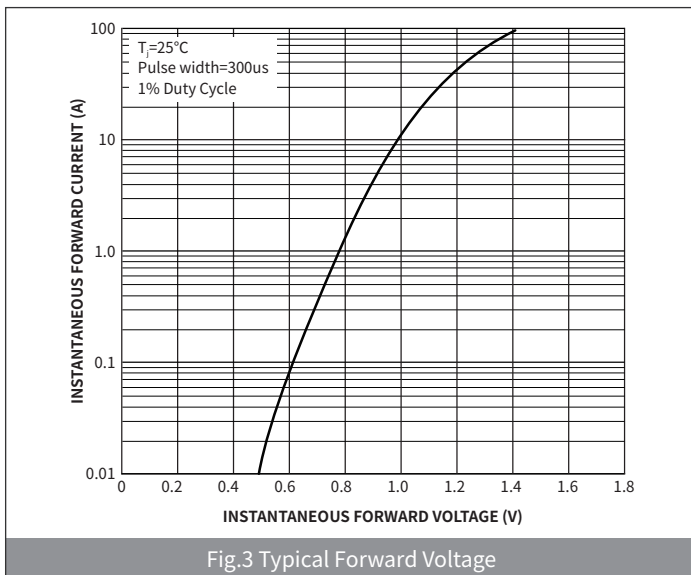
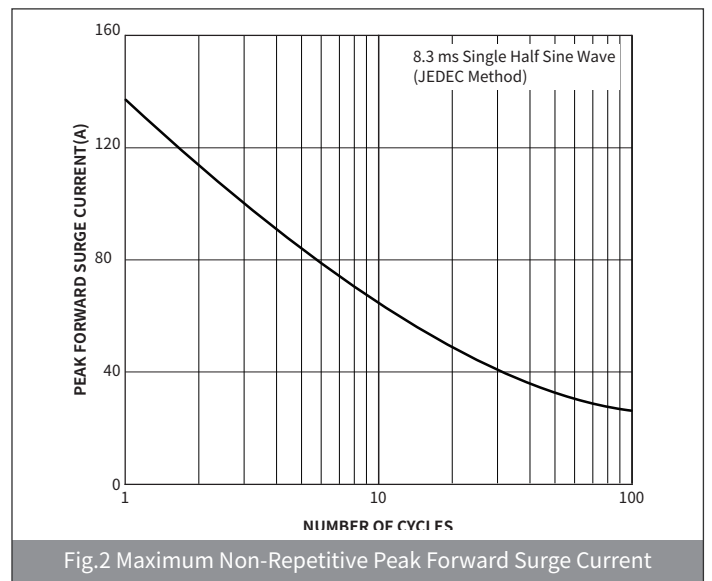
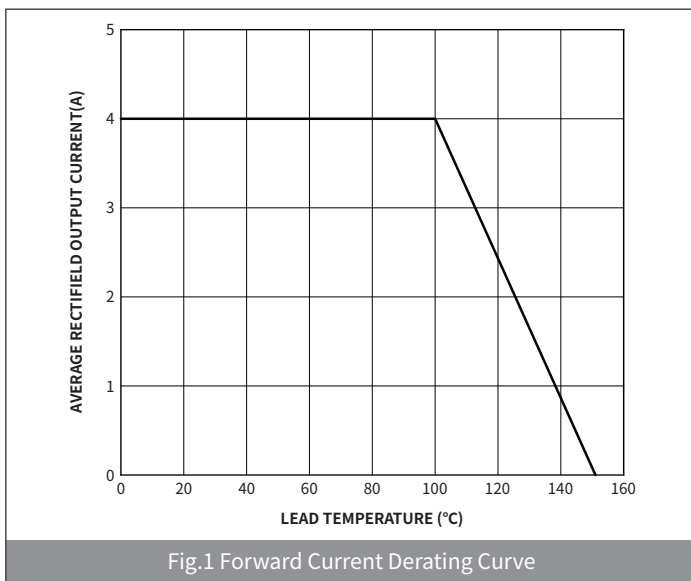
### ● Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBJ4005	KBJ401	KBJ402	KBJ404	KBJ406	KBJ408	KBJ410
Device marking code			KBJ4005	KBJ401	KBJ402	KBJ404	KBJ406	KBJ408	KBJ410
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	4.0						
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	$I_{FSM}$	A	135						
Rating for fusing (t=8.3ms, Ta=25 °C )	$I^2t$	A <sup>2</sup> S	75.63						
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	KBJ4005	KBJ401	KBJ402	KBJ404	KBJ406	KBJ408	KBJ410
Maximum instantaneous forward voltage	$I_F=4A$	$V_F$	V				1.1			
Maximum DC reverse current at rated DC blocking voltage	$V_R=V_{DC}, T_A=25^\circ C$	$I_{R1}$	$\mu A$				10			
	$V_R=V_{DC}, T_A=100^\circ C$	$I_{R2}$					500			
Typical junction capacitance	4.0V DC, 1MHz	$C_J$	pF				60			

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



# KBJ4005 THRU KBJ410

KBJ 4.0 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