

Bridge Rectifiers

Features

- UL recognition, file #E230084
- Thin single in-line package
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

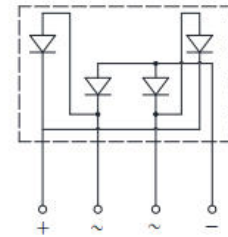
Typical Applications

General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.



Mechanical Data

- **Package:** 4KBJ
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body



■Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBJ15005	KBJ1501	KBJ1502	KBJ1504	KBJ1506	KBJ1508	KBJ1510
Device marking code			KBJ15005	KBJ1501	KBJ1502	KBJ1504	KBJ1506	KBJ1508	KBJ1510
Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load,	With heatsink T _c =110°C	I _O	A	15.0					
	Without heatsink T _a =25°C			3.6					
Surge(non-repetitive)forward current @60Hz half-sine wave, 1 cycle, T _j =25°C	IFSM	A	220						
Current squared time @1ms≤t≤8.3ms T _j =25°C,rating of per diode	I ² t	A ² S	201						
Storage Temperature	T _{stg}	°C	-55 ~+150						
Junction Temperature	T _j	°C	-55 ~+150						
Dielectric strength @ terminals to case, AC 1 minute	V _{dis}	KV	2						
Mounting torque @recommend torque: 5kg • cm	Tor	kg • cm	8						

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBJ15005	KBJ1501	KBJ1502	KBJ1504	KBJ1506	KBJ1508	KBJ1510
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =7.5A	1.00						
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM}	μA	V _{RM} =V _{RRM}	5						

■ **Thermal Characteristics** ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	KBJ15005	KBJ1501	KBJ1502	KBJ1504	KBJ1506	KBJ1508	KBJ1510
Thermal Resistance	Between junction and ambient, Without heatsink	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	25.0						
	Between junction and case, With heatsink	$R_{\theta J-C}$		2.3						

■ **Ordering Information (Example)**

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBJ15005-KBJ1510	B1	Approximate 4.27	20	1000	2000	Tube

■ **Characteristics(Typical)**

FIG1: I_o - T_c Curve

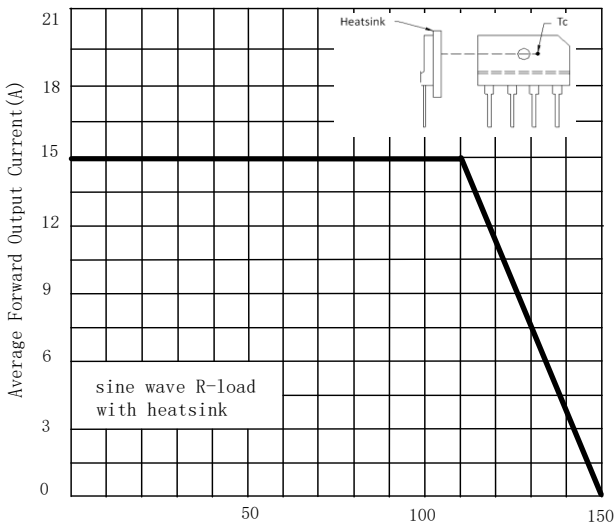


FIG2: Surge Forward Current Capability

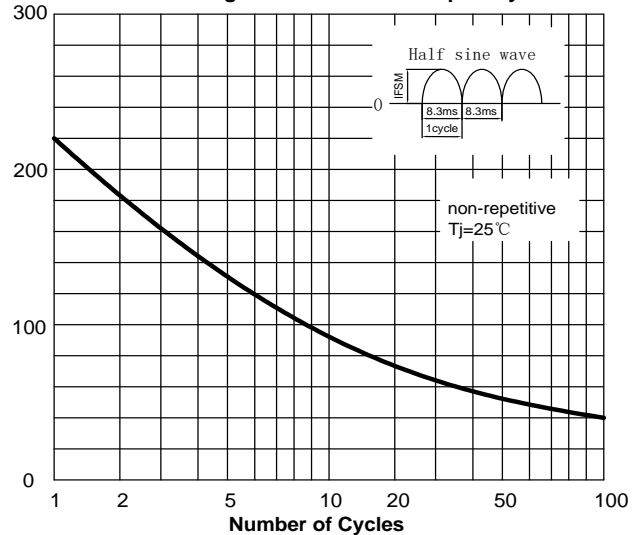


FIG3: Instantaneous Forward Voltage

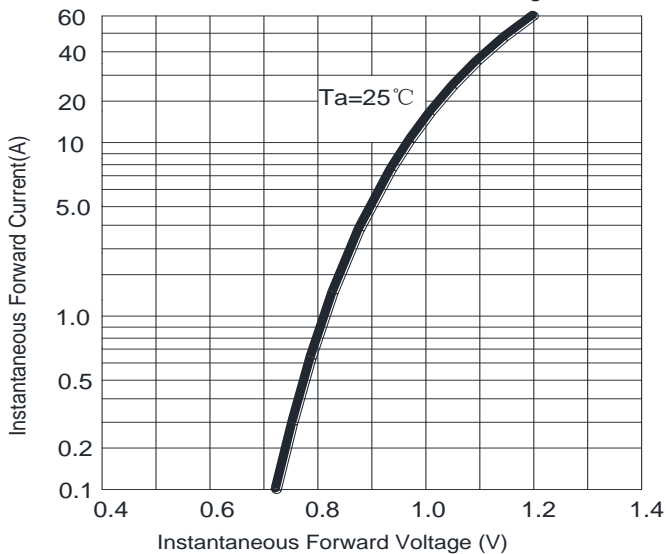
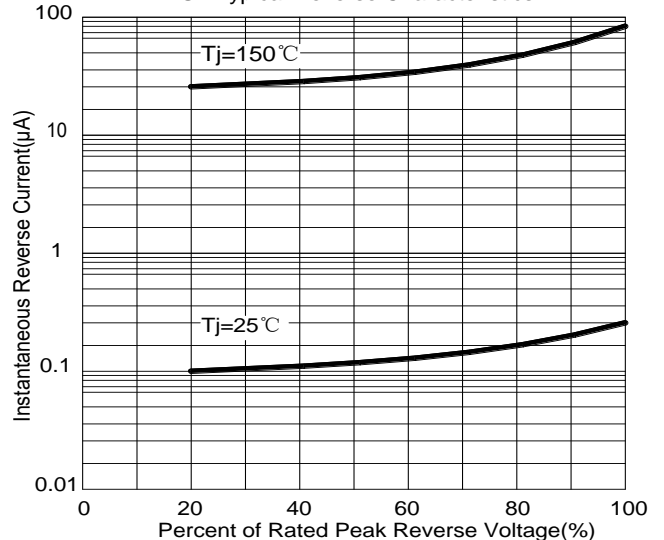
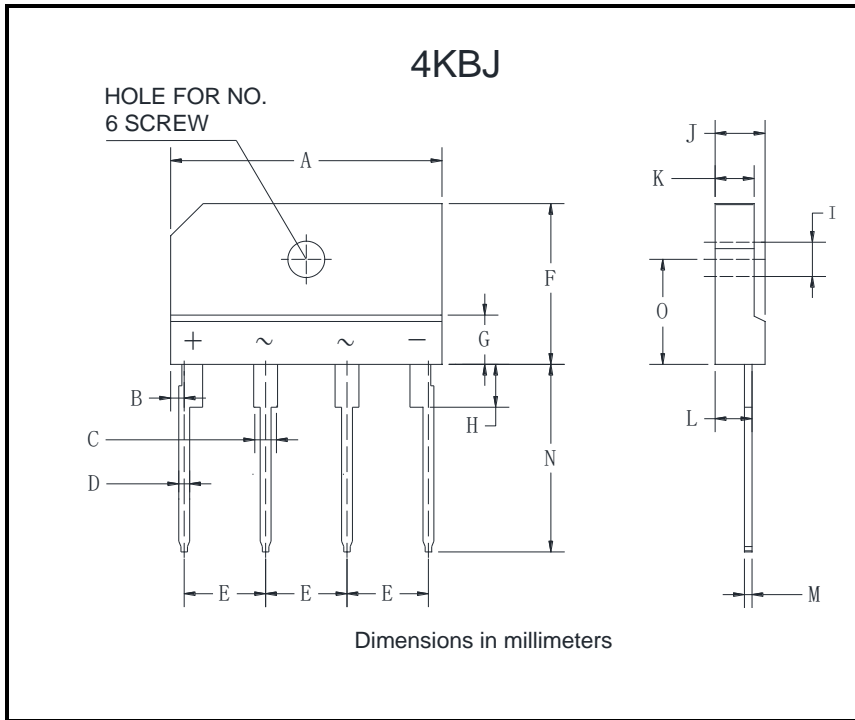


FIG4: Typical Reverse Characteristics



■ **Outline Dimensions**



4KBJ		
Dim	Min	Max
A	24.7	25.3
B	1.05	1.45
C	1.7	2.1
D	0.9	1.1
E	7.3	7.7
F	14.7	15.3
G	3.8	4.2
H	3.3	3.7
I	3.1	3.4
J	4.4	4.8
K	3.4	3.8
L	3.2	3.4
M	0.6	0.8
N	17.0	18.0
O	9.5	10.1

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