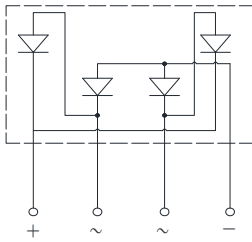
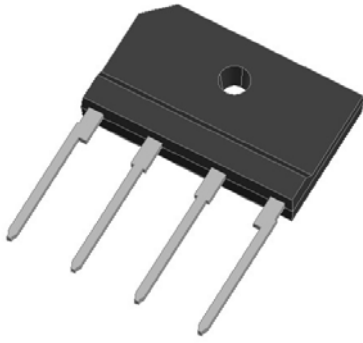




## Bridge Rectifiers



### Features

- UL recognition, file #E230084
- Glass passivated chip junction
- 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<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	KBJ20AA	KBJ20BA	KBJ20DA	KBJ20GA	KBJ20JA	KBJ20KA	KBJ20MA
Device marking code			KBJ20AA	KBJ20BA	KBJ20DA	KBJ20GA	KBJ20JA	KBJ20KA	KBJ20MA
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, R-load	With heatsink T <sub>C</sub> =120°C	IO	A	20					
	Without heatsink T <sub>a</sub> =25°C			2.4					
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T <sub>j</sub> =25°C	IFSM	A	300						
Current squared time @1ms≤t≤8.3ms T <sub>j</sub> =25°C, rating of per diode	I <sup>2</sup> t	A <sup>2</sup> S	374						
Storage temperature	T <sub>stg</sub>	°C	-55 ~ +150						
Junction temperature	T <sub>j</sub>	°C	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute	V <sub>dis</sub>	KV	2						
Mounting torque @Recommend torque: 5kg·cm	Tor	kg·cm	8						

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBJ20AA	KBJ20BA	KBJ20DA	KBJ20GA	KBJ20JA	KBJ20KA	KBJ20MA
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =10A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C	5						
			T <sub>j</sub> =125°C	100						
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	95						



# KBJ20AA THRU KBJ20MA

## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	KBJ20AA	KBJ20BA	KBJ20DA	KBJ20GA	KBJ20JA	KBJ20KA	KBJ20MA
Thermal Resistance	Between junction and ambient, Without heatsink	R <sub>θJ-A</sub>	°C/W	18						
	Between junction and case, With heatsink	R <sub>θJ-C</sub>		0.8						

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

## ■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBJ20AA ~ KBJ20MA	B1	Approximate 3.93	20	1000	2000	Tube

## ■ Characteristics(Typical)

FIG1: I<sub>o</sub>-T<sub>c</sub> Curve

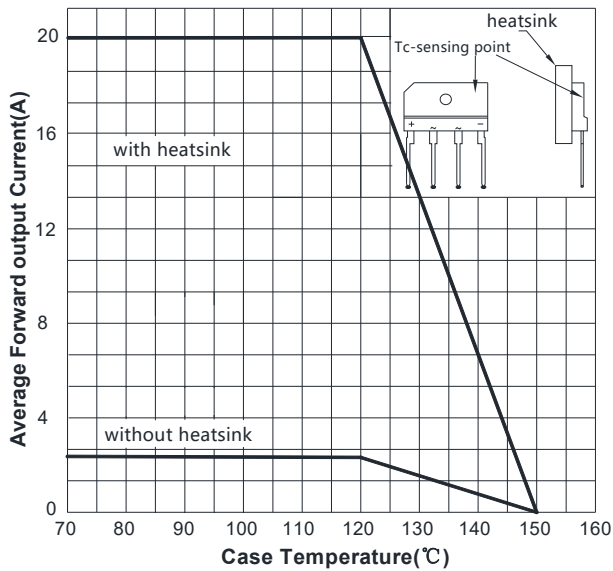


FIG2: Surge Forward Current Capability

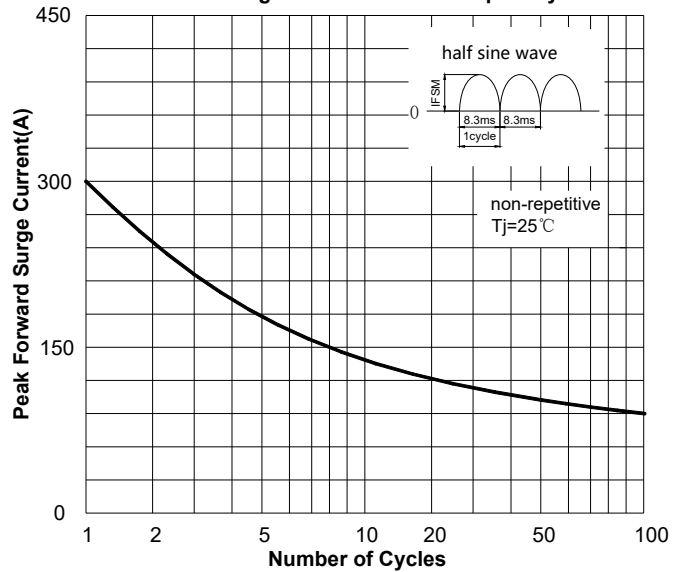


FIG3: Typical Forward Voltage

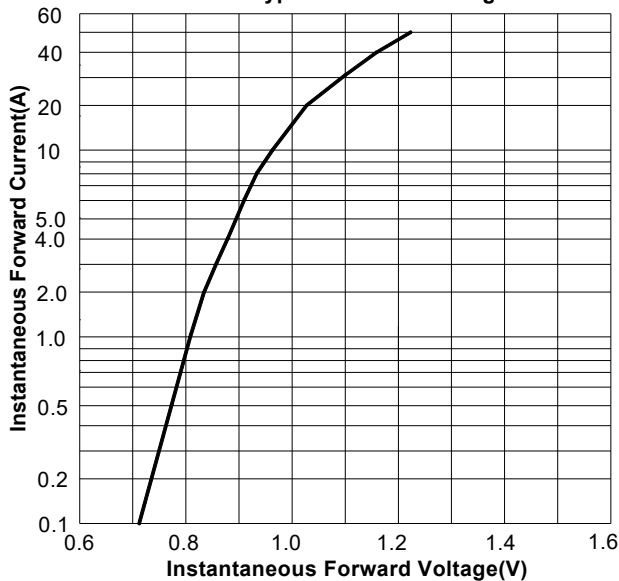
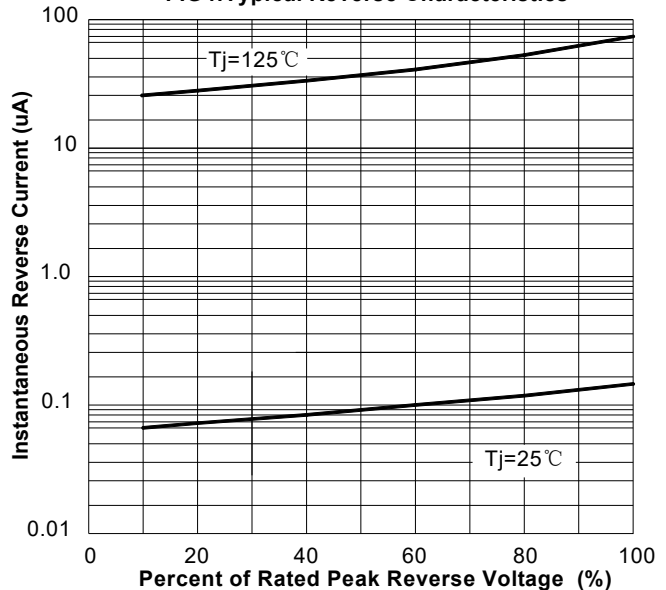


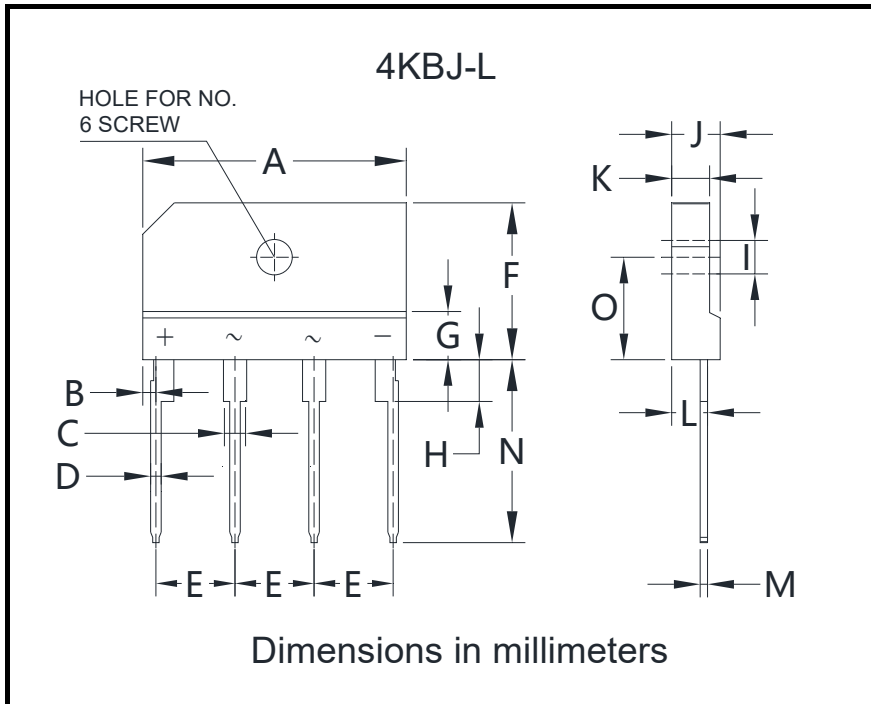
FIG4: Typical Reverse Characteristics





# KBJ20AA THRU KBJ20MA

## ■ Outline Dimensions



4KBJ-L		
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	2.95	3.25
M	0.35	0.65
N	17.0	18.0
O	9.5	10.1



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