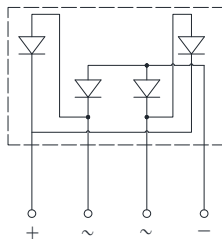


Bridge Rectifiers



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_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	KBJ416
Device marking code				KBJ416
Maximum Repetitive Peak Reverse Voltage		VRRM	V	1600
Maximum RMS Voltage		VRMS	V	1120
Maximum DC blocking Voltage		VDC	V	1600
Average Rectified Output Current @60Hz sine wave, R-load	With heatsink T _c =125°C	IO	A	4.0
	Without heatsink T _a =25°C			2.6
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _j =25°C		IFSM	A	120
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25°C				240
Current squared time @1ms≤t≤8.3ms, T _j =25°C, rating of per diode		I ² t	A ² S	59.8
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	KBJ416
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =2.0A	1.0
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25°C	5
			T _j =125°C	100
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	30



KBJ416

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

PARAMETER		SYMBOL	UNIT	KBJ416
Thermal Resistance	Between junction and ambient, Without heatsink	R _{θJ-A}	°C/W	20
	Between junction and case, With heatsink	R _{θJ-C}		3

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
KBJ416	B1	Approximate 4.27	20	1000	2000	Tube

■ Characteristics (Typical)

FIG1:I_o-T_c Curve

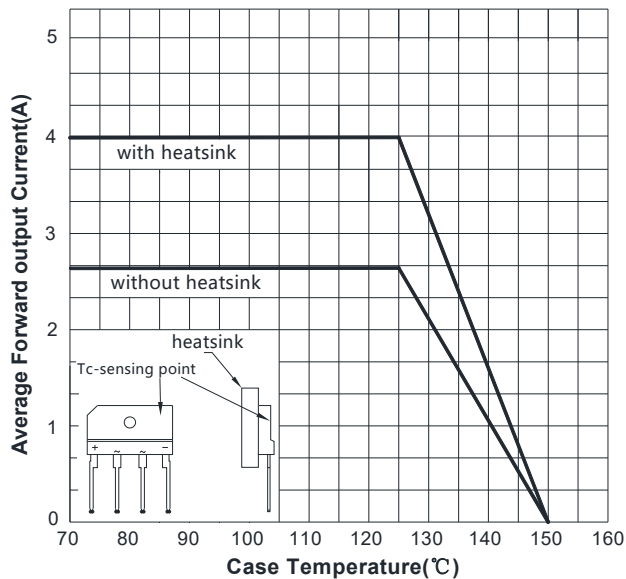


FIG2: Surge Forward Current Capability

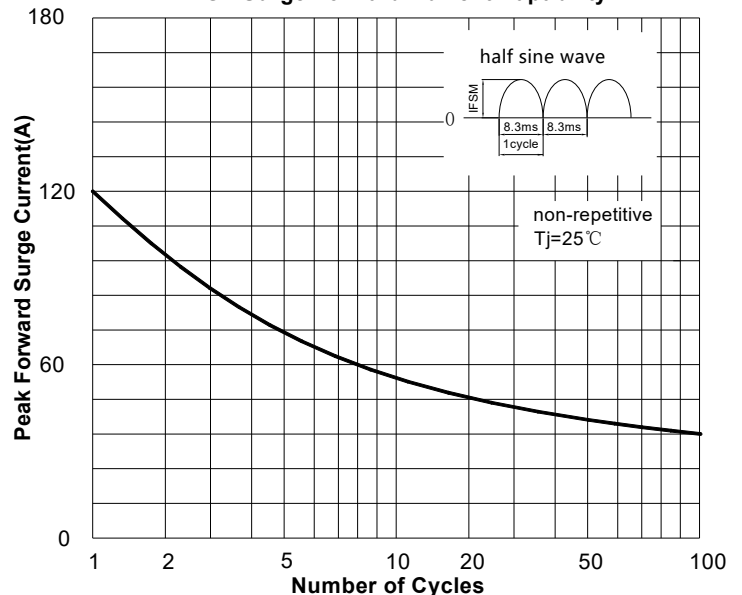


FIG3: Typical Forward Voltage

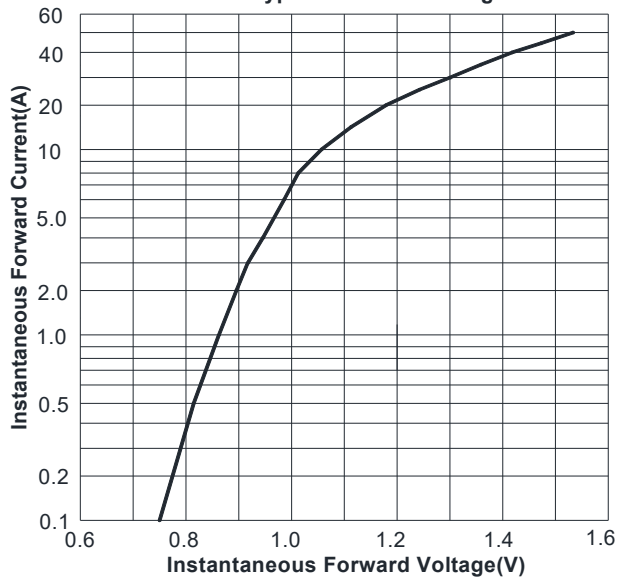
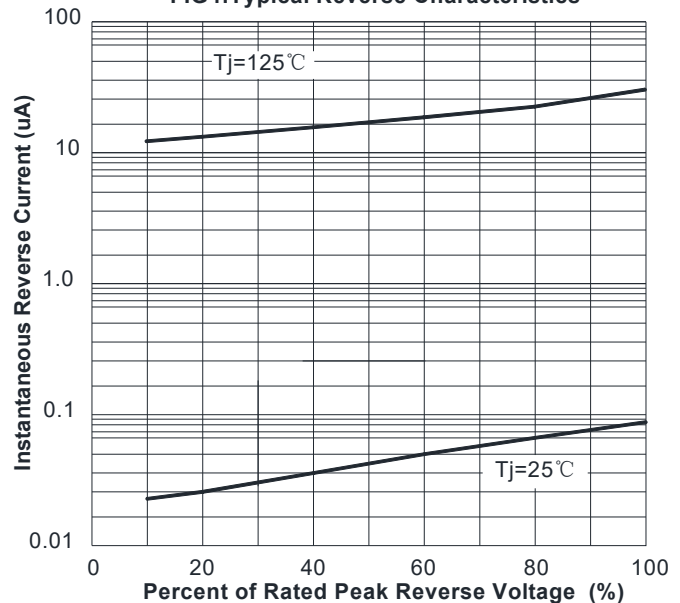
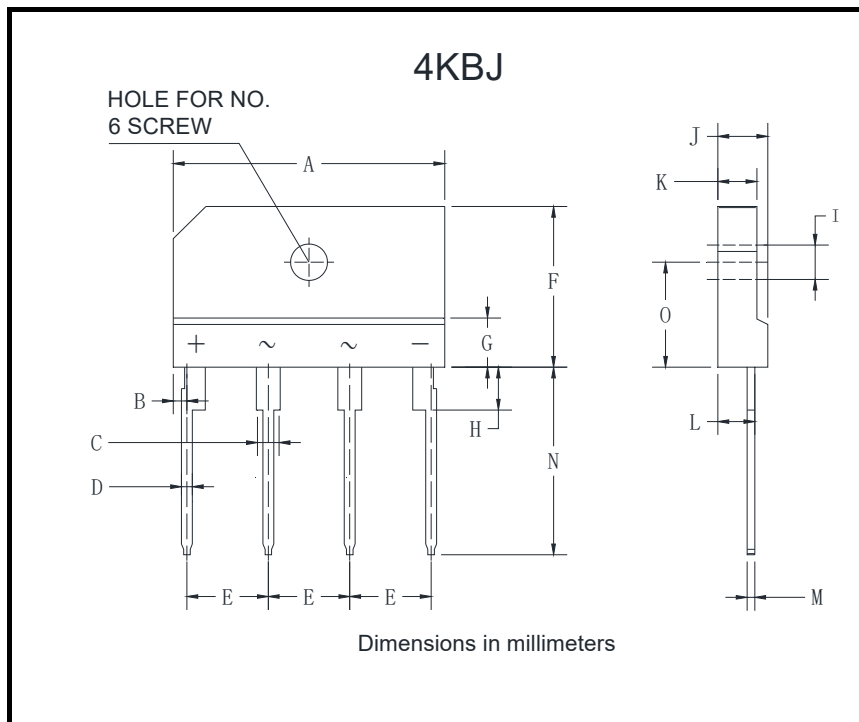


FIG4: Typical Reverse Characteristics





■ 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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