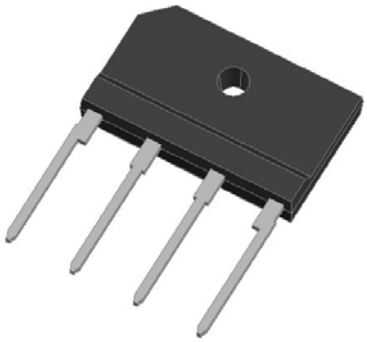
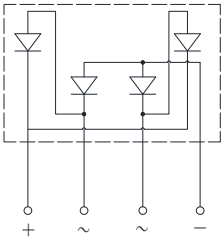
Bridge Rectifiers





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℃ 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
Average Rectified Output Current @60Hz sine wave, R-load	With heatsink T_c =125℃	I_O	A	4.0						
	Without heatsink T_a =25℃			2.6						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃		I_{FSM}	A	135						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃				270						
Current squared time @1ms≤t≤8.3ms, Tj=25℃, rating of per diode		I^2t	A^2S	75.6						
Storage temperature		T_{stg}	℃	-55 ~ +150						
Junction temperature		T_j	℃	-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℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	KBJ4005	KBJ401	KBJ402	KBJ404	KBJ406	KBJ408	KBJ410
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℃	5						
			T_j =125℃	100						
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	38						

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	KBJ4005	KBJ401	KBJ402	KBJ404	KBJ406	KBJ408	KBJ410
Thermal Resistance	Between junction and ambient, Without heatsink	$R_{\theta J-A}$	℃/W	20						
	Between junction and case, With heatsink	$R_{\theta J-C}$		3						

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

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
KBJ4005 ~ KBJ410	B1	Approximate 4.27	20	1000	2000	Tube

■ Characteristics (Typical)

FIG1:Io-Tc Curve

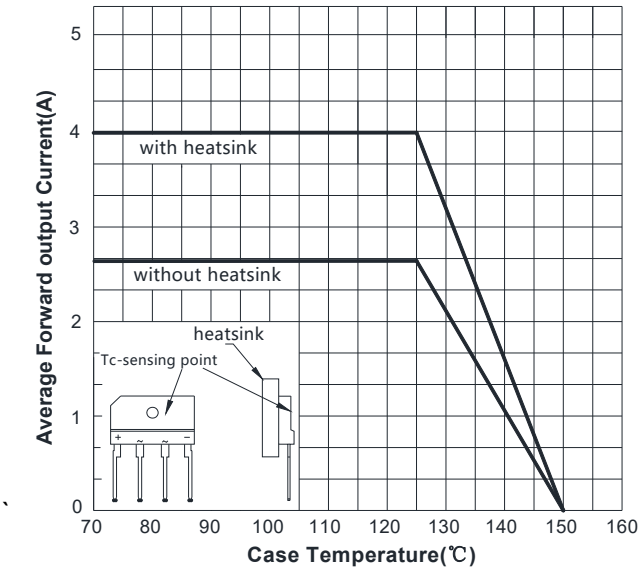


FIG2:Surge Forward Current Capability

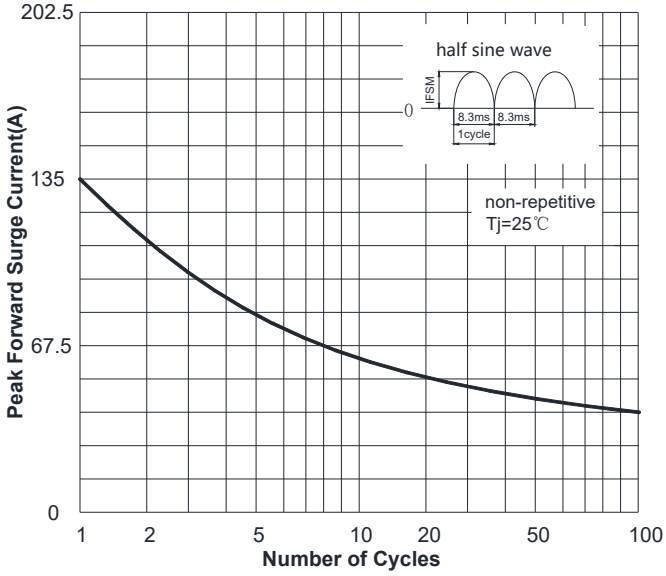


FIG3: Typical Forward Voltage

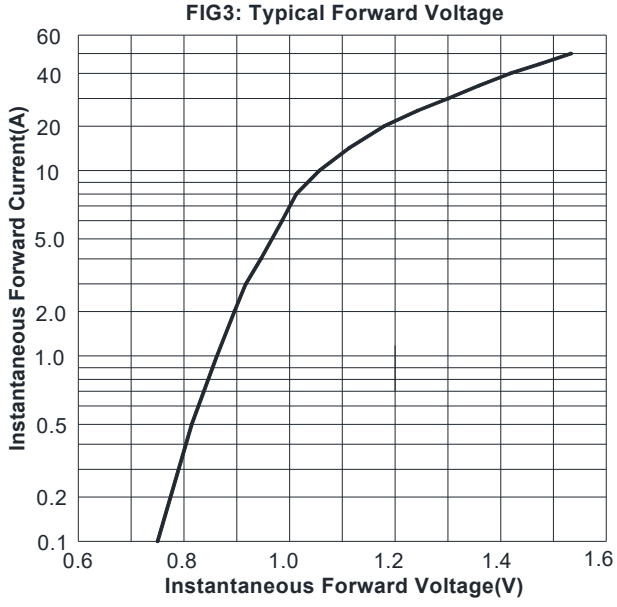
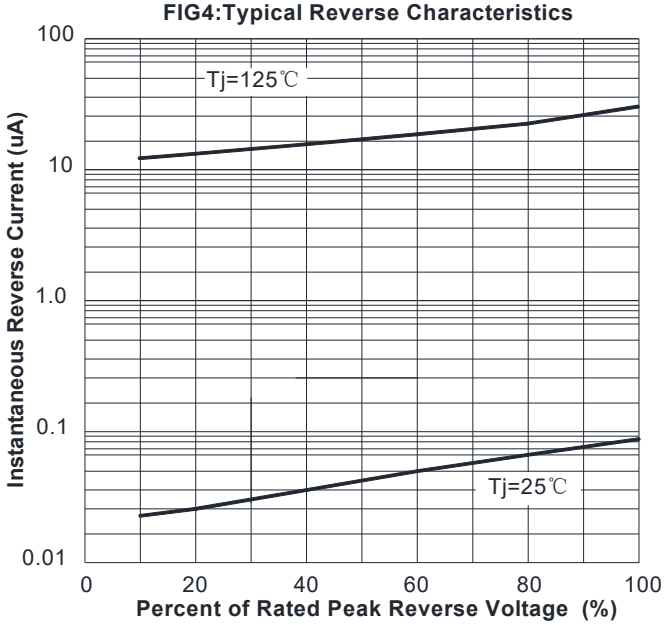
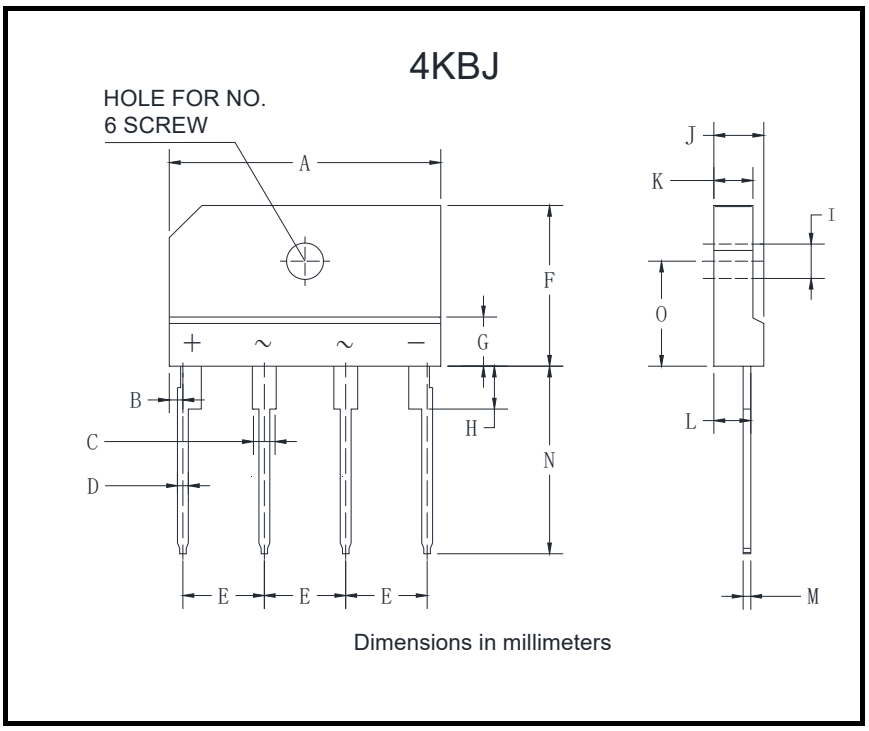


FIG4:Typical Reverse Characteristics



■ 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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