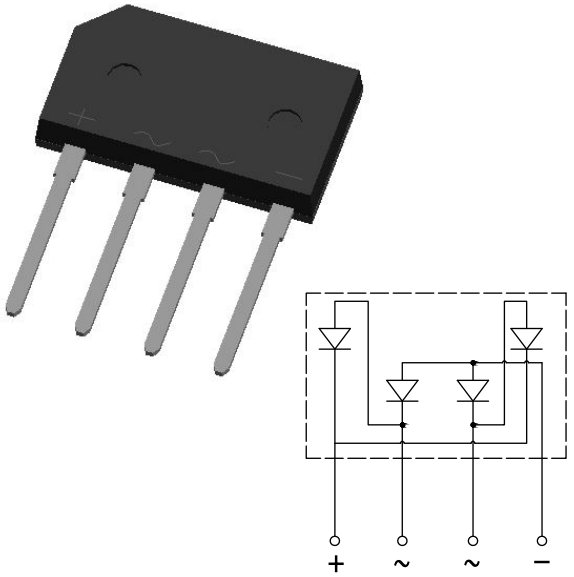
Bridge Rectifiers
GBL6005 Through GBL610

GBL



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**: GBL
  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 (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GBL6005	GBL601	GBL602	GBL604	GBL606	GBL608	GBL610
Device marking code			GBL6005	GBL601	GBL602	GBL604	GBL606	GBL608	GBL610
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, T_a =25℃	I_O	A	6.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	150						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃			280						
Current squared time @1ms≤t≤8.3ms Tj=25℃,rating of per diode	I^2t	A^2S	78.4						
Dielectric strength @ terminals to case, AC 1 minute	Vdis	KV	2						
Storage temperature	T_{stg}	℃	-55 ~ +150						
Junction temperature	T_j	℃	-55 ~ +150						

ELECTRICAL CHARACTERISTICS (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBL6005	GBL601	GBL602	GBL604	GBL606	GBL608	GBL610
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=3.0A	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	45						

■ THERMAL CHARACTERISTICS (Ta=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	GBL6005	GBL601	GBL602	GBL604	GBL606	GBL608	GBL610
Thermal Resistance	Between junction and ambient	RθJ-A	℃/W	47						
	Between junction and case	RθJ-C		10						

■ PACKAGING INFORMATION

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBL6005 - GBL610	B1	Approximate 2.19	22	1320	5280	Tube

■ CHARACTERISTICS (TYPICAL)

FIG1:Io-Ta Curve

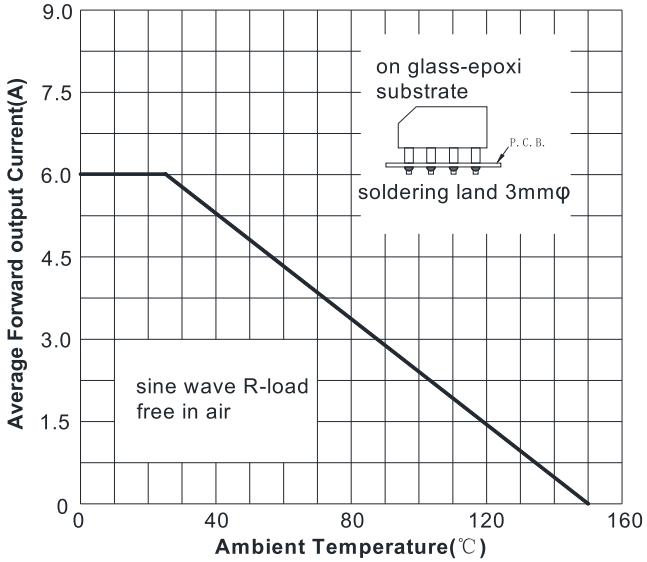


FIG2:Surge Forward Current Capability

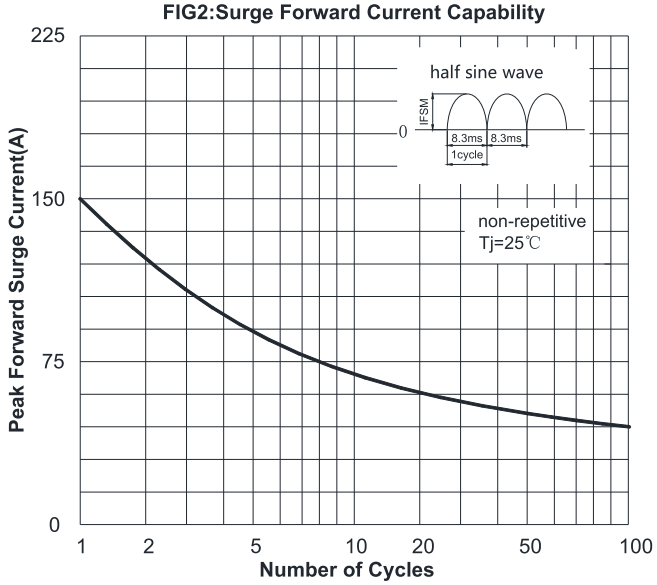


FIG3: Typical Forward Voltage

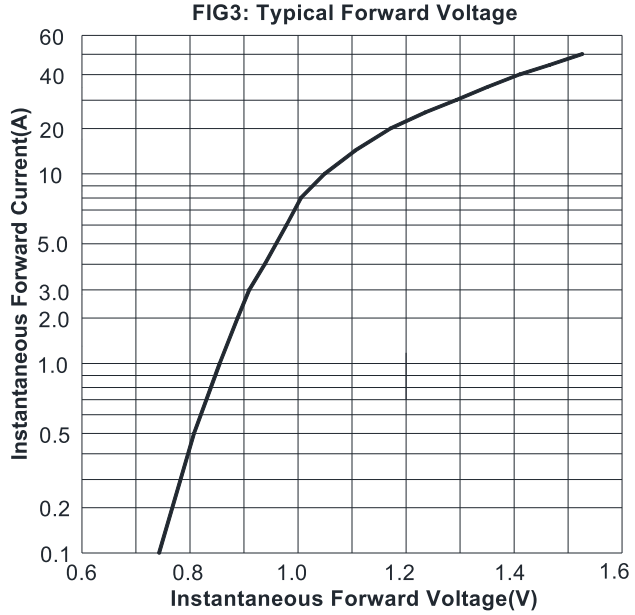
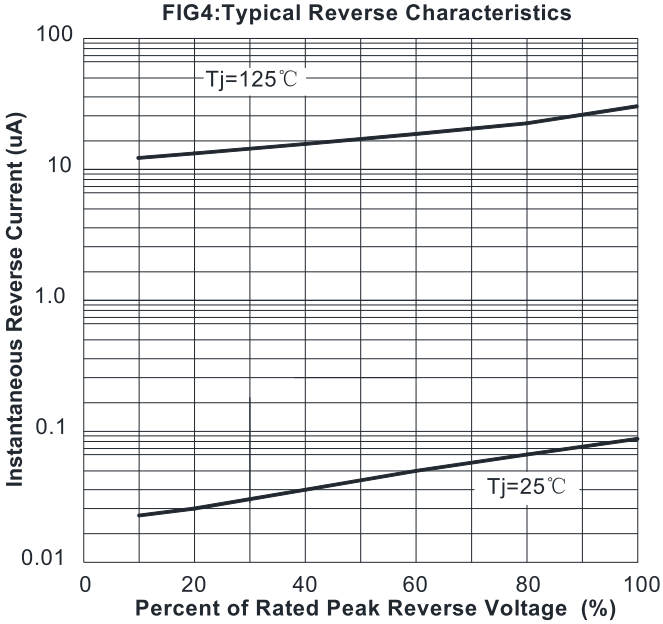
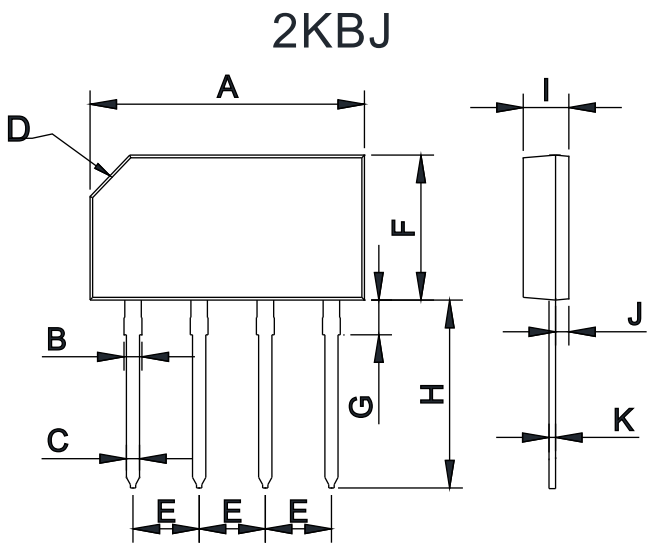


FIG4:Typical Reverse Characteristics



■ OUTLINE DIMENSIONS



Dimensions in millimeters

2KBJ		
Dim	Min	Max
A	19.2	21.2
B	1.2	1.8
C	1.0	1.2
D	Typ：3.0	
E	4.9	5.1
F	10.5	11.5
G	2.0	3.0
H	13.0	15.0
I	3.0	4.0
J	0.9	1.1
K	0.4	0.6