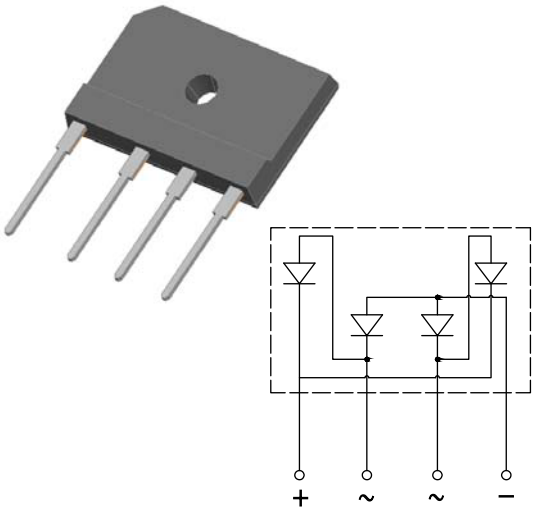
Bridge Rectifiers
GBJ35005A Through GBJ3510A 6KBJ



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**: 6KBJ
  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	GBJ35005A	GBJ3501A	GBJ3502A	GBJ3504A	GBJ3506A	GBJ3508A	GBJ3510A
Device marking code				GBJ35005A	GBJ3501A	GBJ3502A	GBJ3504A	GBJ3506A	GBJ3508A	GBJ3510A
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 =100℃	I_O	A	35.0						
	Without heatsink T_a =25℃			3.6						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃		I_{FSM}	A	400						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃				800						
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode		I^2t	A^2s	664						
Storage temperature		T_{stg}	℃	-55 ~ +150						
Junction temperature		T_j	℃	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute		V_{dis}	KV	2.5						
Mounting torque @Recommend torque：5kg·cm		Tor	kg·cm	8						

ELECTRICAL CHARACTERISTICS (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBJ35005A	GBJ3501A	GBJ3502A	GBJ3504A	GBJ3506A	GBJ3508A	GBJ3510A
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=17.5A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	Tj =25℃	5						
			Tj =125℃	100						
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	150						

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

PARAMETER		SYMBOL	UNIT	GBJ35005A	GBJ3501A	GBJ3502A	GBJ3504A	GBJ3506A	GBJ3508A	GBJ3510A
Typical Thermal Resistance	Between junction and ambient, Without heatsink	RθJ-A	℃/W	18.0						
	Between junction and case, With heatsink	RθJ-C		0.8						

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

■ PACKAGING INFORMATION

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBJ35005A - GBJ3510A	B1	Approximate 6.5	15	750	1500	TUBE

■ CHARACTERISTICS (TYPICAL)

FIG1:Io-Tc Curve

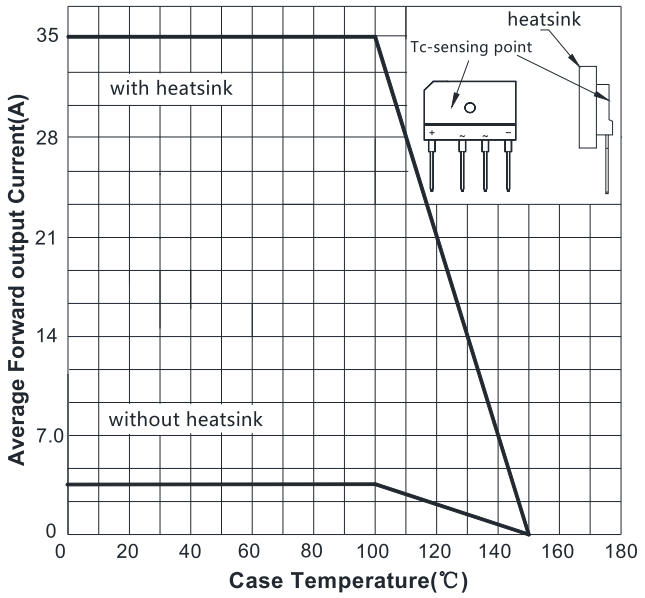


FIG2:Surge Forward Current Capability

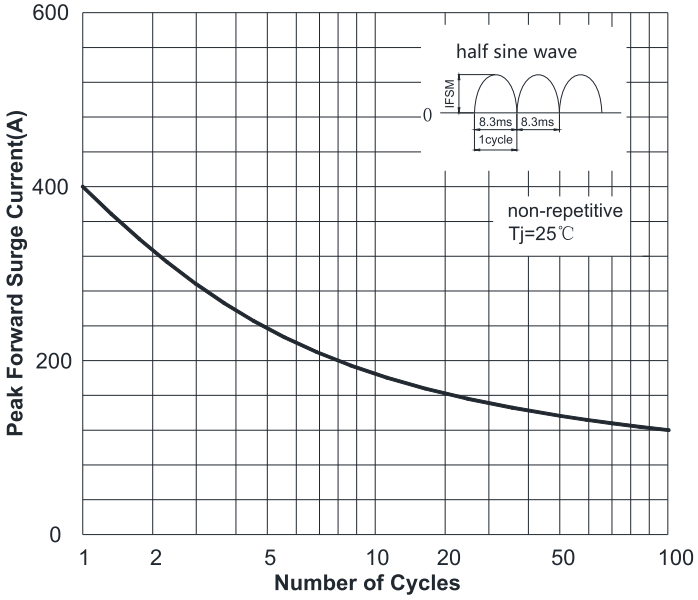


FIG3: Typical Forward Voltage

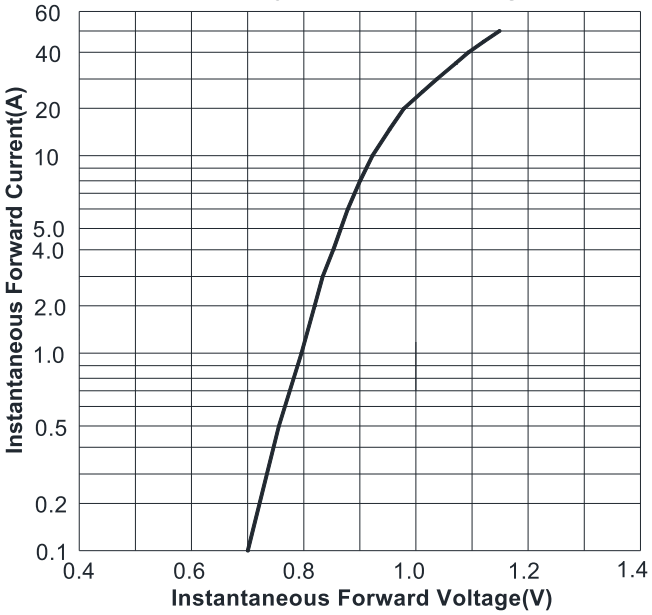
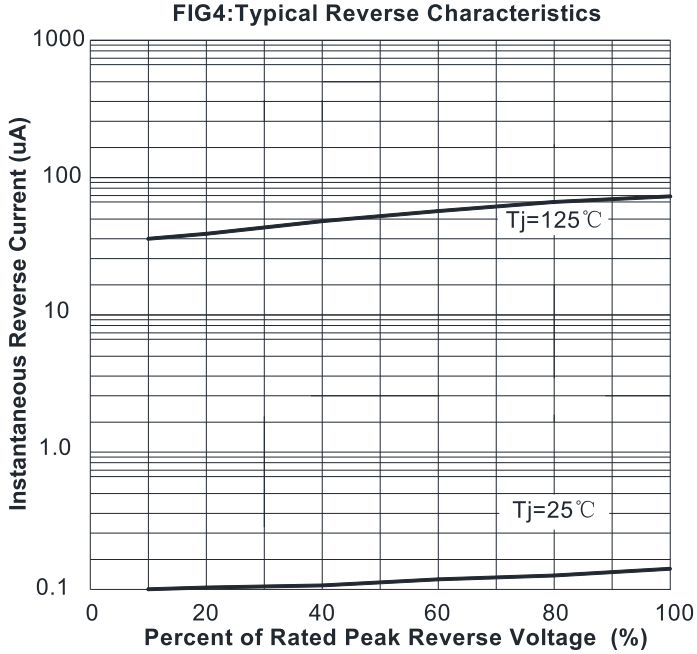
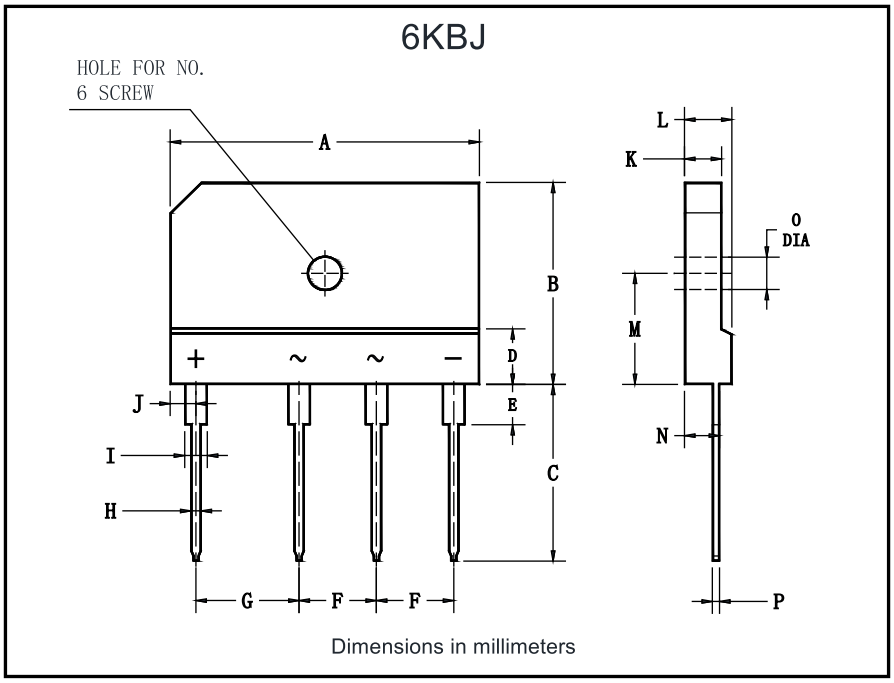


FIG4:Typical Reverse Characteristics



OUTLINE DIMENSIONS



6KBJ		
Dim	Min	Max
A	29.7	30.3
B	19.7	20.3
C	17.0	18.0
D	4.8	5.8
E	3.8	4.2
F	7.3	7.7
G	9.8	10.2
H	0.9	1.1
I	2.0	2.4
J	2.3	2.7
K	3.4	3.8
L	4.4	4.8
M	10.8	11.2
N	3.1	3.7
O	3.1	3.4
P	0.6	0.8