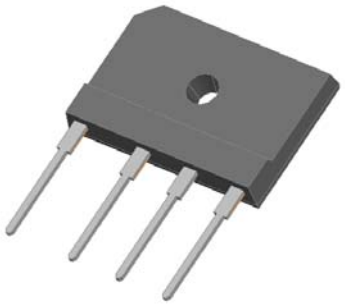
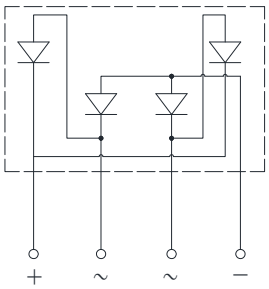
Bridge Rectifiers





Features

- Thin single in-line package
- Glass passivated chip junction
- 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 (T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	GBJ3510D
Device marking code				GBJ3510D
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	V	1600
Maximum RMS Voltage		V_{RMS}	V	1120
Maximum DC blocking Voltage		V_{DC}	V	1600
Average rectified output current @60Hz sine wave, R-load	With heatsink Tc =80℃	I_O	A	35.0
	Without heatsink Ta =25℃			3.5
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Tj=25℃		I_{FSM}	A	350
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃				700
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode		I^2t	A^2s	508.4
Reverse Surge@20ms，Tj =25℃		SI	mA	9.9
Storage temperature		T_{stg}	℃	-55 ~ +150
Junction temperature		T_j	℃	-55 ~ +150
Dielectric strength @ Terminals to case, AC 1 minute		Vdis	KV	2.5
Mounting torque @Recommend torque：5kg·cm		Tor	kg·cm	8

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GBJ3510D
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=17.5A	1.1
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j=25℃	5
			T_j=125℃	500
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	95

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

PARAMETER		SYMBOL	UNIT	GBJ3510D
Thermal Resistance	Between junction and ambient, Without heatsink	$R_{\theta J-A}$	℃/W	18.0
	Between junction and case, With heatsink	$R_{\theta J-C}$		1.0

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

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GBJ3510D	B1	Approximate 6.5	15	750	1500	TUBE

■ Characteristics(Typical)

FIG1:Io-Tc Curve

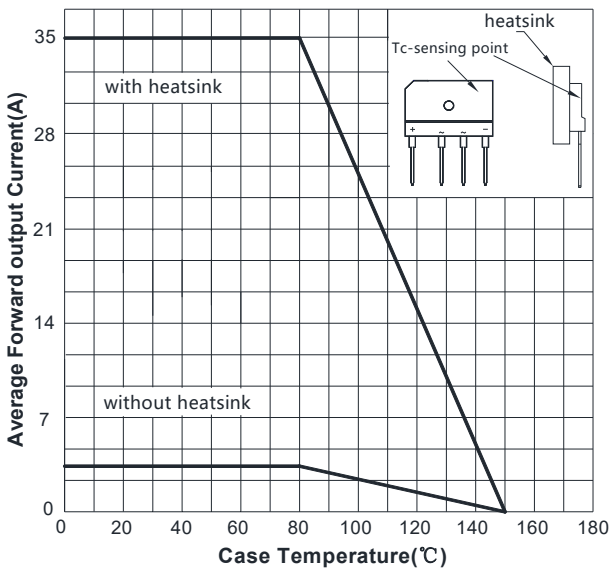
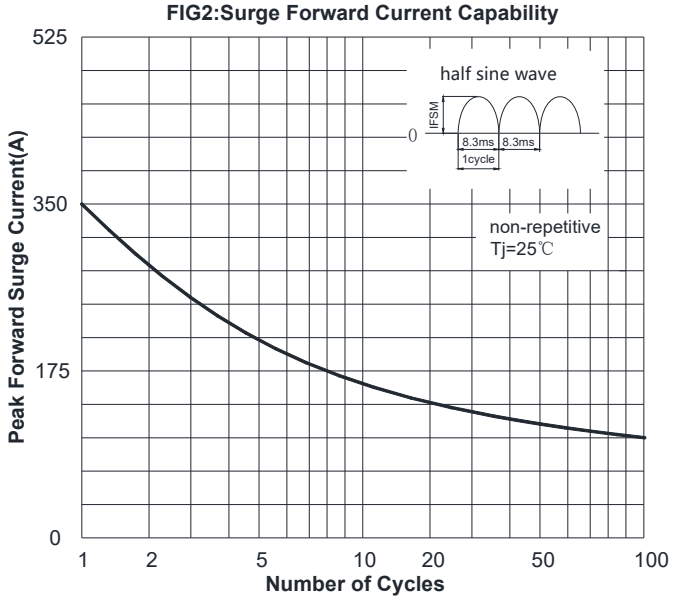
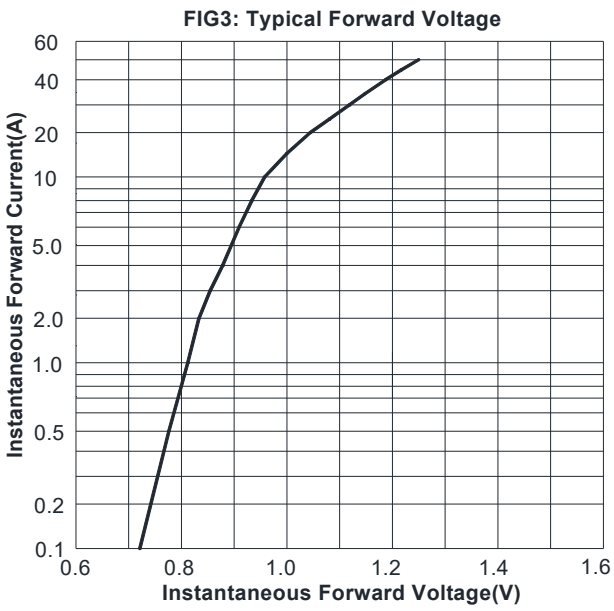
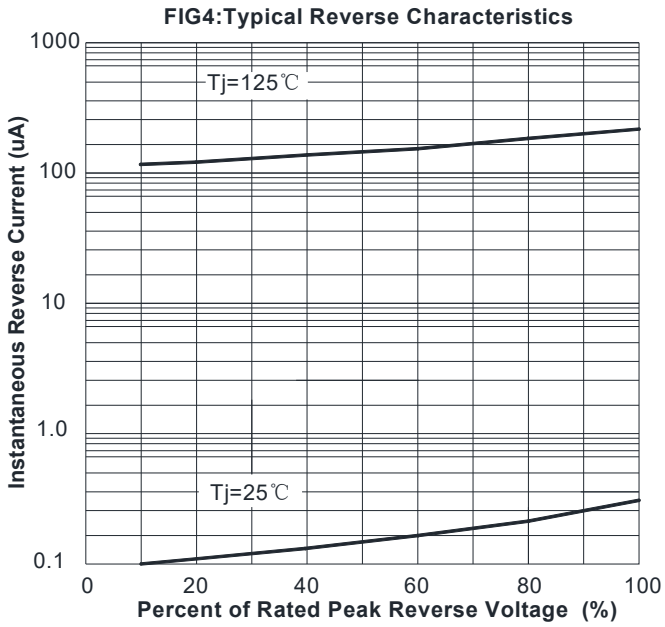


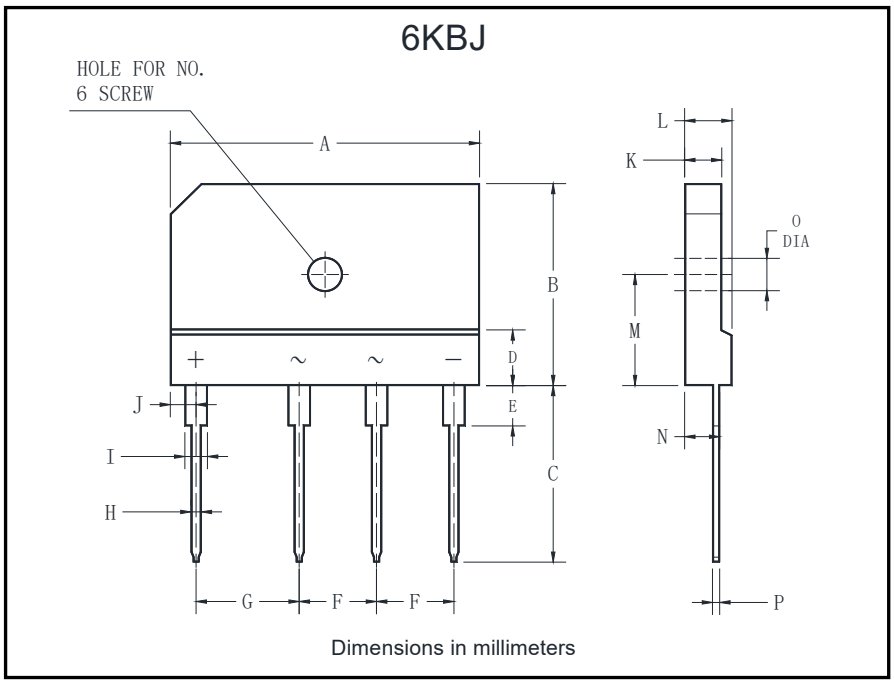
FIG2:Surge Forward Current Capability







■ 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

Notice

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in STARSEA's terms and conditions of sale for such products, STARSEA assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of STARSEA products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.