

### Portable energy storage power supply special plug-in type fast recovery bridge

#### Product Introduction

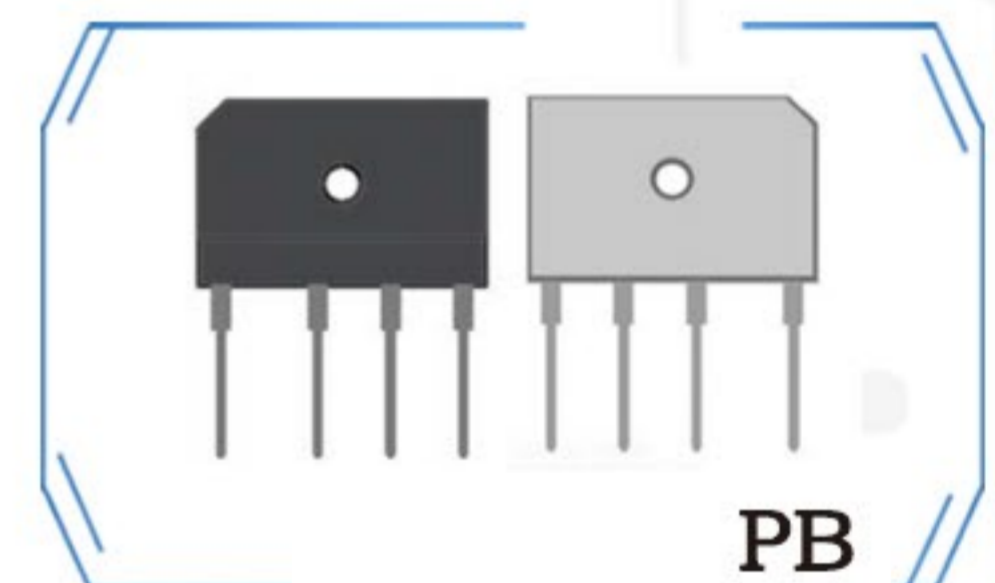
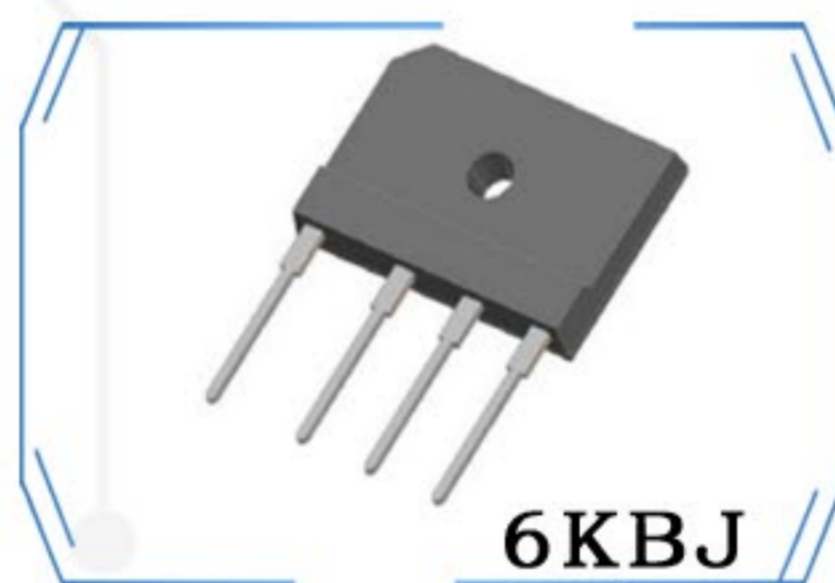
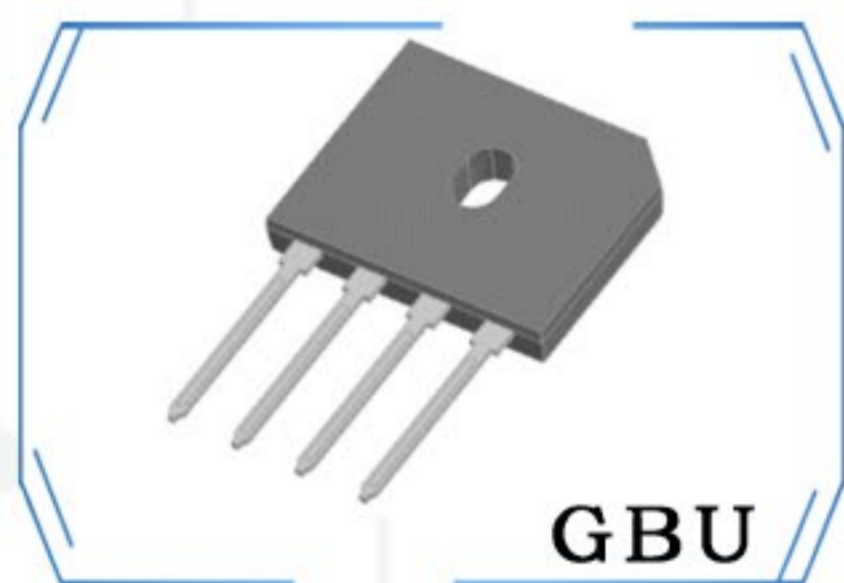
Portable energy storage power supply, referred to as "outdoor power supply", is a small energy storage device with built-in lithium-ion batteries, which can replace traditional small fuel generators. It has the characteristics of large capacity, high power, safety and portability, can provide a stable AC/DC voltage output power system, its battery capacity in 100Wh-3000Wh, and it is equipped with AC, DC, Type-C, USB, PD and other interfaces. It can match the mainstream electronic equipment on the market, and is suitable for outdoor travel, emergency disaster relief, medical rescue, outdoor work and other scenarios. Portable energy storage has a huge market demand, mainly from outdoor activities and emergency reserves. At present, the main market of portable energy storage is mainly in Europe and North America. China's portable energy storage brand has been occupying the European and American markets, and portable energy storage equipment is also a bright product in the export category.

The energy storage power supply is to boost the DC voltage into high voltage AC through the inverter, and then become high voltage DC after the rectification circuit and capacitor filtering, and finally become AC output after modulation. The bridge rectifier circuit is an indispensable circuit structure in the inverter, which is used to rectify the AC after the voltage boost. The DC voltage output by the rectifier bridge is sent to the H-bridge modulation stage composed of four MOS tubes for AC modulation and AC voltage output.

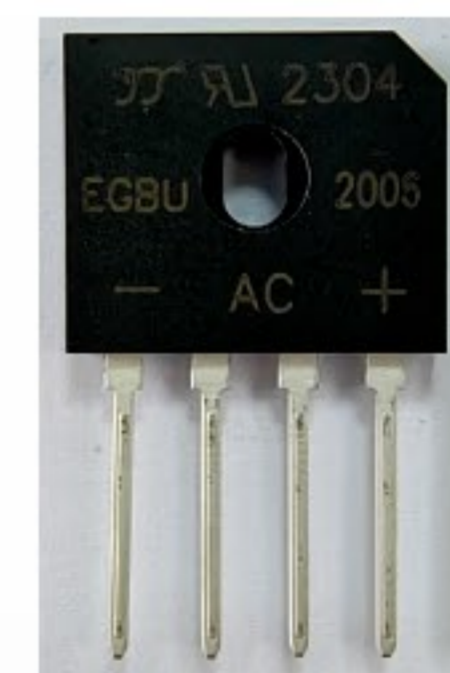
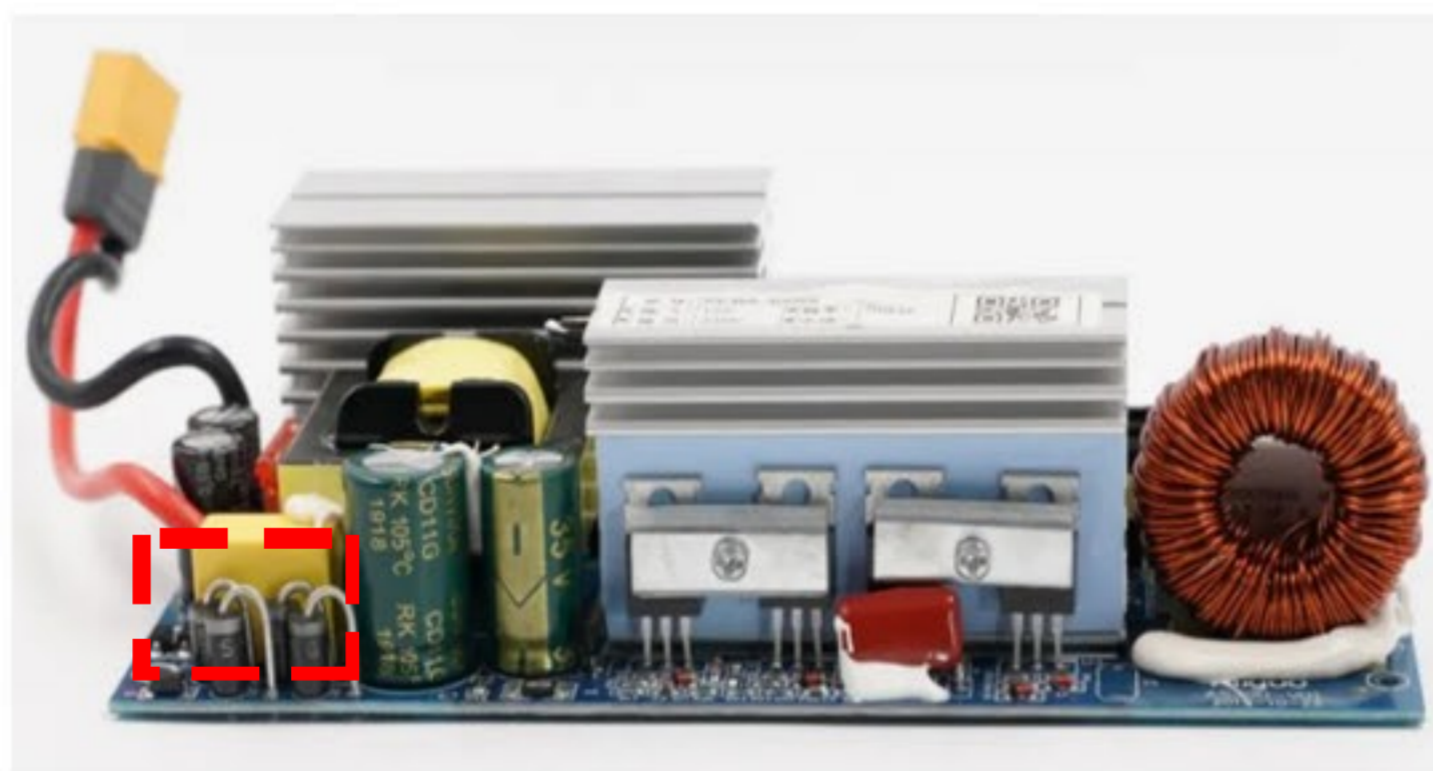
Therefore, Yangjie has launched a series of fast recovery bridge products for portable energy storage power supply applications. The reverse recovery time (TRR) of the product can be within 35ns or 50ns. The product gives full play to the soft recovery feature, reduces the reverse recovery current IRRM, reduces EMI and improves efficiency.

#### Product Features

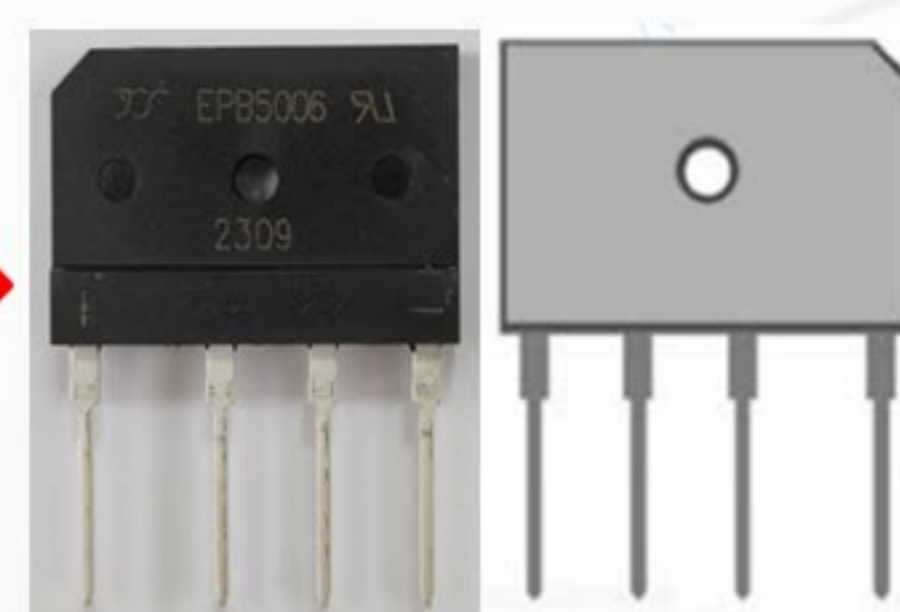
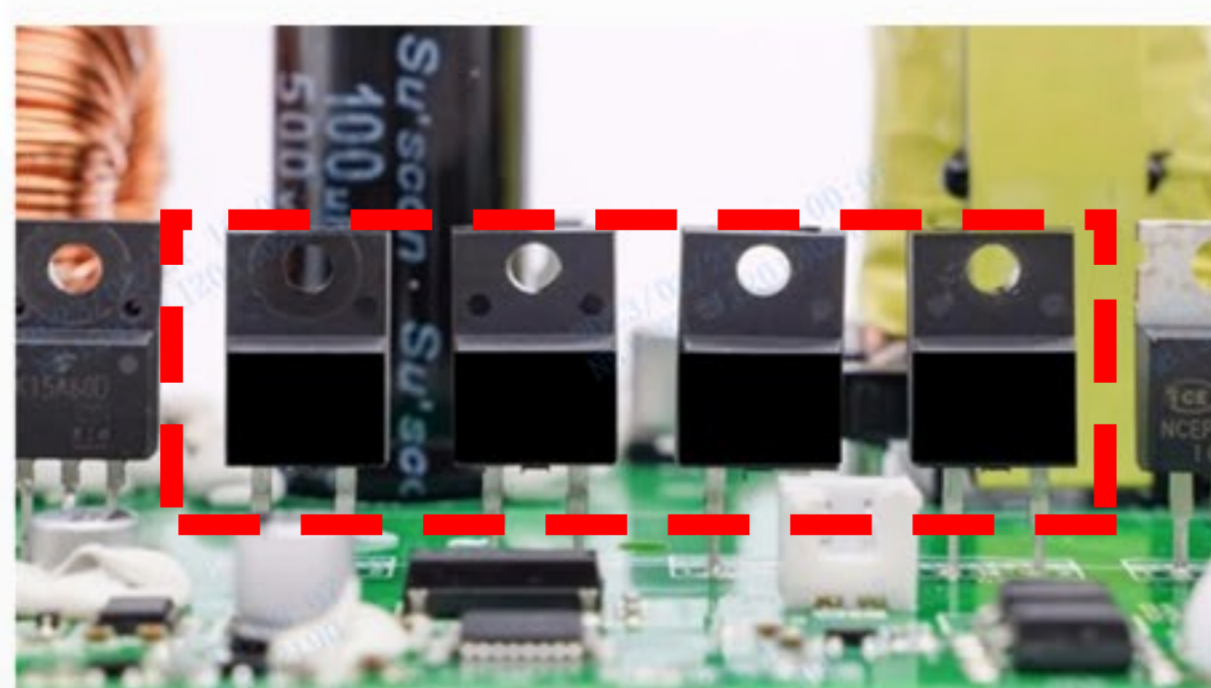
1、 Portable energy storage power special plug-in class fast recovery bridge, which involves the package of GBU, 6KBJ, PB, and these packages are mature packages. The current of the product covers 6-50A. It is a 600V voltage resistant product, supports 220V output voltage, and supports high power output. (See the electrical parameters table below for details)



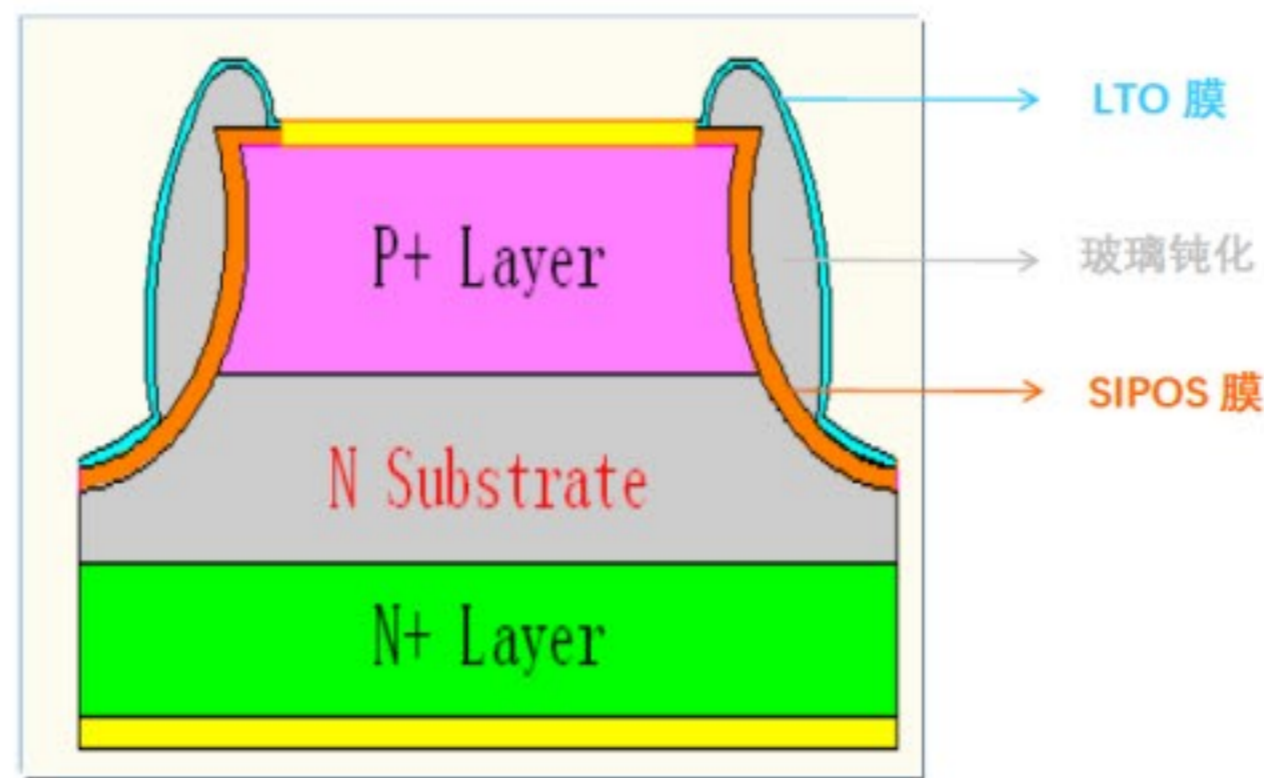
2、 Traditional inverter scheme one: the use of 4 in-line diode rectification (red circle), this scheme makes the device heat dissipation is not free, the output power is limited, and the need for artificial shaping and plug-ins, performance and cost are at a disadvantage. However, the Yangjie plug-in type fast recovery bridge can add heat sink for cooling. Compared with the traditional discrete rectifier diode, it can greatly save space, greatly reduce the cost of use, and output higher power.



3、 Traditional inverter solution 2: The use of TO/ITO-220 package of four plug-in diodes, part of the design with the heat sink, the number of devices and pins and assembly trouble, cost, production efficiency are at a disadvantage. The Yanjie fast recovery bridge has better space utilization, reduces the number of pin, reduces labor costs, optimizes the inverter high frequency and high power boost, reduces the diode junction capacitance inside the rectifier bridge, simplifies the circuit board wiring circuit, and can effectively reduce the influence of integrated inductance and diode junction capacitance on EMI.



4、Yangjie adopts the deep IDM model and has its own wafer design and manufacturing facility. We have internally packaged Photo Glass process chips, with three layers of passivation protection, and stable high temperature characteristics and reliability capabilities. We can cooperate with customers to develop specific products for specific application scenarios, so as to achieve rapid development and timely delivery.



### Electrical Parameters

Part NO.	$V_{RRM}$ (V)	$I_o$ (A)	$I_{FSM}$ (A)	Rated $I_o$ (A)	$V_F$ (V)	$I_R$ ( $\mu$ A)@25 $^{\circ}$ C	$I_R$ ( $\mu$ A)@125 $^{\circ}$ C	TRR(ns)@RG-1	$T_j$ ( $^{\circ}$ C)	Package
EGBU606	600	6	135	3	1.5	5	100	35	-55~+150	GBU
EGBU806	600	8	135	4	1.7	5	100	35	-55~+150	GBU
EGBU1006	600	10	175	5	1.7	5	100	35	-55~+150	GBU
EGBU1506	600	15	180	7.5	2	5	100	35	-55~+150	GBU
EGBU2006	600	20	180	10	2	5	100	35	-55~+150	GBU
EGBU2506	600	25	220	12.5	2	5	100	35	-55~+150	GBU
EGBU3006	600	30	320	15	2	5	100	50	-55~+150	GBU
EGBU3506	600	35	350	17.5	2	5	100	50	-55~+150	GBU
EGBU5006	600	50	380	25	2	5	200	50	-55~+150	GBU
EGBJ1006	600	10	175	5	1.7	5	100	35	-55~+150	6KBJ
EGBJ1506	600	15	180	7.5	2	5	100	35	-55~+150	6KBJ
EGBJ2006	600	20	180	10	2	5	100	35	-55~+150	6KBJ
EGBJ2506	600	25	220	12.5	2	5	100	35	-55~+150	6KBJ
EGBJ3506	600	35	350	17.5	2	5	100	50	-55~+150	6KBJ
EGBJ5006	600	50	380	25	2	5	200	50	-55~+150	6KBJ
EPB2506	600	25	220	12.5	2	5	100	35	-55~+150	PB
EPB3506	600	35	350	17.5	2	5	100	50	-55~+150	PB
EPB5006	600	50	380	25	2	5	200	50	-55~+150	PB

Please Refer To The Official Website For More Details

### Application



■ Portable energy storage power