



BRIDGE RECTIFIERS

REVERSE VOLTAGE - 50 to 1000 Volts

FORWARD CURRENT - 40 Amperes

FEATURES

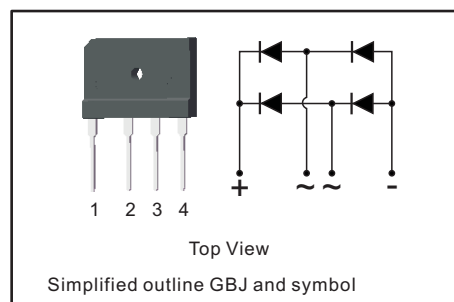
- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has U/L
- The flammability classification 94V-0

MECHANICAL DATA

- Polarity : Symbols molded on body
- Weight : 0.24 ounces, 6.79 grams
- Mounting position : Any

PINNING

PIN	DESCRIPTION
1	Output Anode (+)
2	Input Pin (~)
3	Input Pin (~)
4	Output Cathode (-)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	Symbols	GBJ 40005G	GBJ 4001G	GBJ 4002G	GBJ 4004G	GBJ 4006G	GBJ 4008G	GBJ 4010G	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note 2)	$I_{(AV)}$	40							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	450							A
I^2t Rating for Fusing	I^2t	840							A ² S
Maximum forward Voltage at 20A DC	V_F	1.1							V
Maximum DC Reverse Current at rated Blocking Voltage @ $T_j=25^\circ\text{C}$ @ $T_j=125^\circ\text{C}$	I_R	5 500							μA
Typical Junction Capacitance ⁽¹⁾	C_j	300							pF
Typical Thermal Resistance ⁽²⁾	R_{thJA} R_{thJC}	35 2.5							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							$^\circ\text{C}$

(1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

(2) .Device mounted on 150mm*150mm*1.6mm Cu Plate Heat sink



Fig.1 FORWARD CURRENT DERATING CURVE

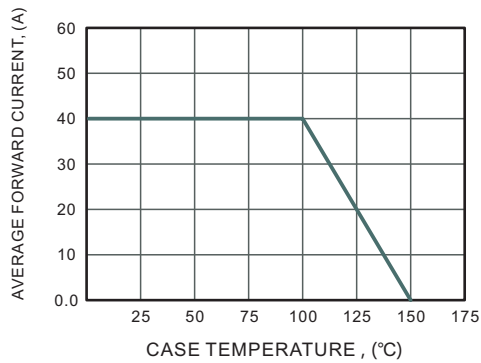


Fig.2 Typical Reverse Characteristics

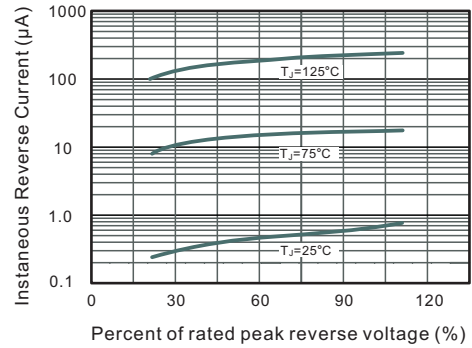


Fig.3 Typical Forward Characteristics

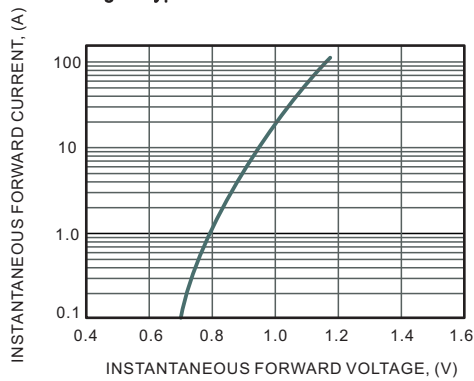


Fig.4 Typical Junction Capacitance

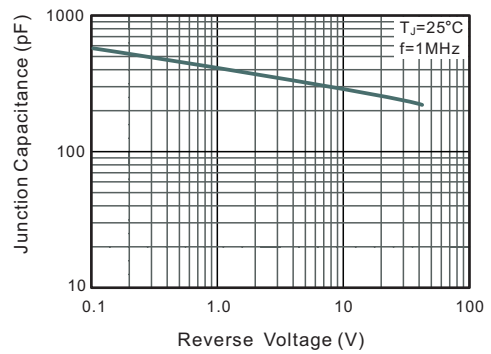
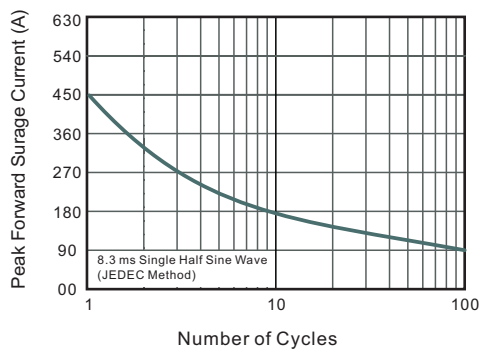
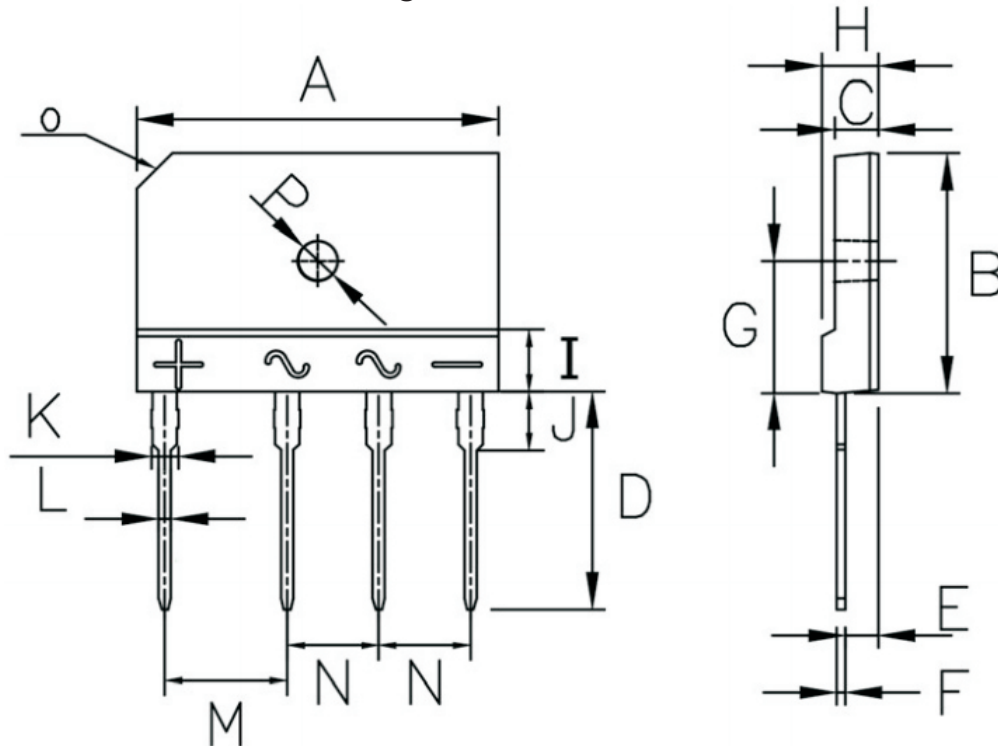


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current





GBJ Package Outline Dimensions



GBJ mechanical data

UNIT		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
mm	max	30.30	20.30	3.80	18.00	2.90	0.80	11.2	4.80	5.80	4.20	2.40	1.15	10.20	7.70	C3.0	φ3.6
	min	29.70	19.70	3.40	17.00	2.50	0.55	10.8	4.40	4.80	3.80	2.00	0.90	9.80	7.30		φ3.0
mil	max	1193	799	150	709	114	31	441	189	228	165	94	45	402	303	C118	φ142
	min	1169	776	134	669	98	22	425	173	189	150	79	35	386	287		φ118

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