

Descriptions

Glass Passivated Bridge Rectifiers, Reverse Voltage:50~1000V,Forward Current:25A,GBJ package.

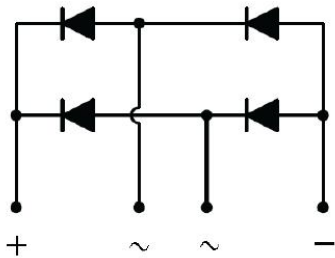
Features

- Ideal for printed circuit board
- Case material molded plastic
- The plastic material has U/L flammability classification 94V-0
- Halogen free product

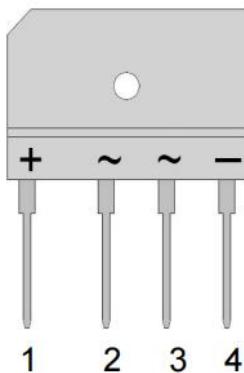
Applications

General purpose

Equivalent Circuit



Pinning



PIN1: DC+ PIN2: AC PIN 3: AC PIN 4: DC-

Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating							Unit
		GBJ 25005	GBJ 2501	GBJ 2502	GBJ 2504	GBJ 2506	GBJ 2508	GBJ 2510	
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 Rectified Current (with heatsink Note 2)	$I_{F(AV)}$	25							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	270							A
I^2t Rating for Fusing (t<8.3ms)	I^2t	300							A ² s
Typical Junction Capacitance per element (Note1)	CJ	70							pF
Typical Thermal Resistance (Note2)	$R_{\theta Jc}$	1.5							°C/W
Operation Temperature Range	T_j	-55 to +150							°C
Storage Temperature Range	T_{stg}	-55 to +150							°C

NOTE:

- 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- 2.Device mounted on 150mm*150mm*1.6mm Cu Plate Heatsink

Electrical Characteristics(Ta=25°C)

Parameter	Symbol	Test Conditions	Rating	Unit
Maximum Forward Voltage	V_F	$I_F=12.5A$	1.0	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_a=25^{\circ}C$	5.0	μA
		$T_a=125^{\circ}C$	500	

Electrical Characteristic Curve

FIG.1-FORWARD CURRENT DERATING CURVE

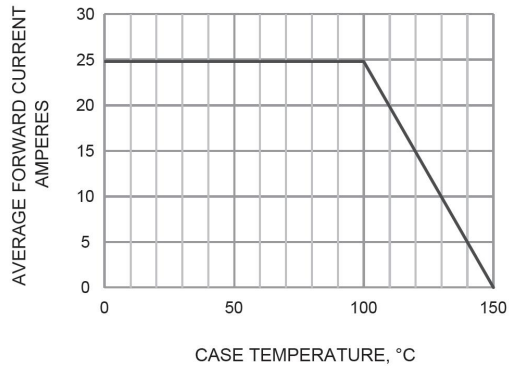


FIG.2-MAXIMUM FORWARD SURGE CURRENT

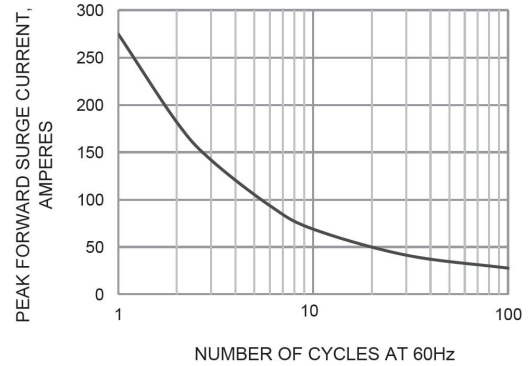


FIG.3-TYPICAL JUNCTION CAPACITANCE

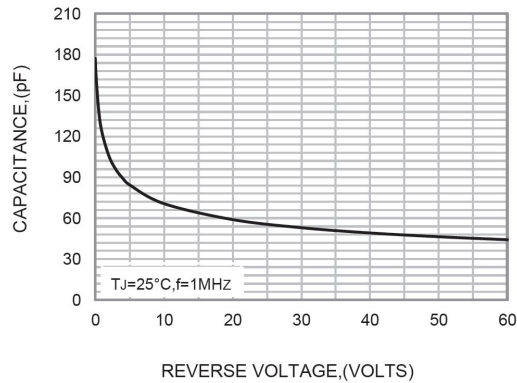


FIG.4-TYPICAL FORWARD CHARACTERISTICS

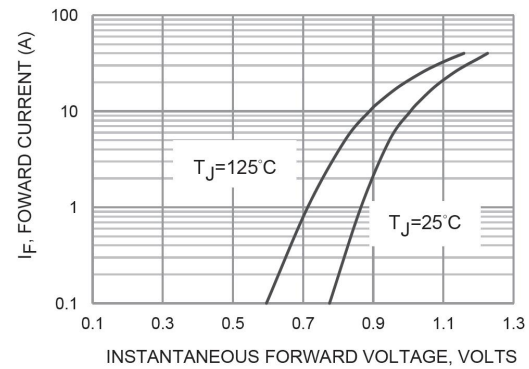
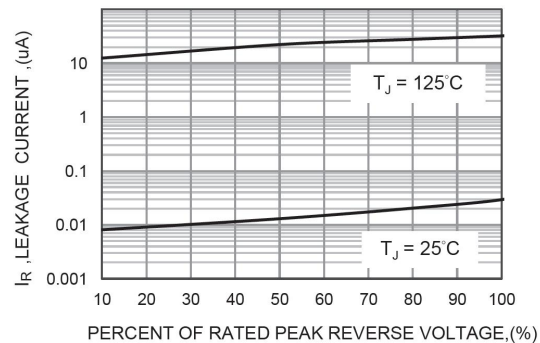
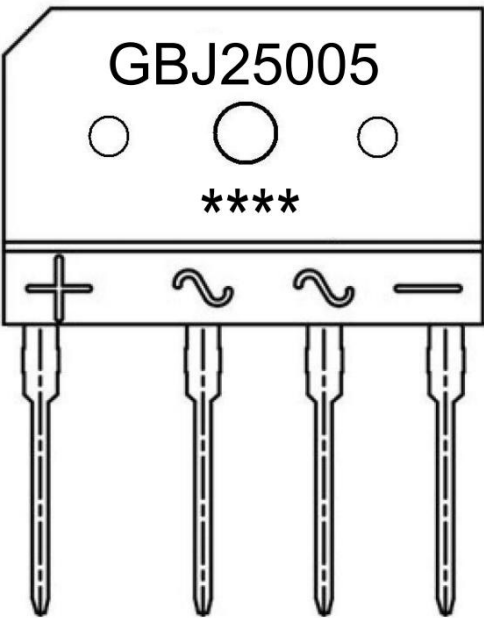


FIG.5-TYPICAL REVERSE CHARACTERISTICS



Marking Instructions



Note:

GBJ25005: Product Type.
****: Lot No. Code, code change with Lot No

Packaging SPEC

Bulk packing

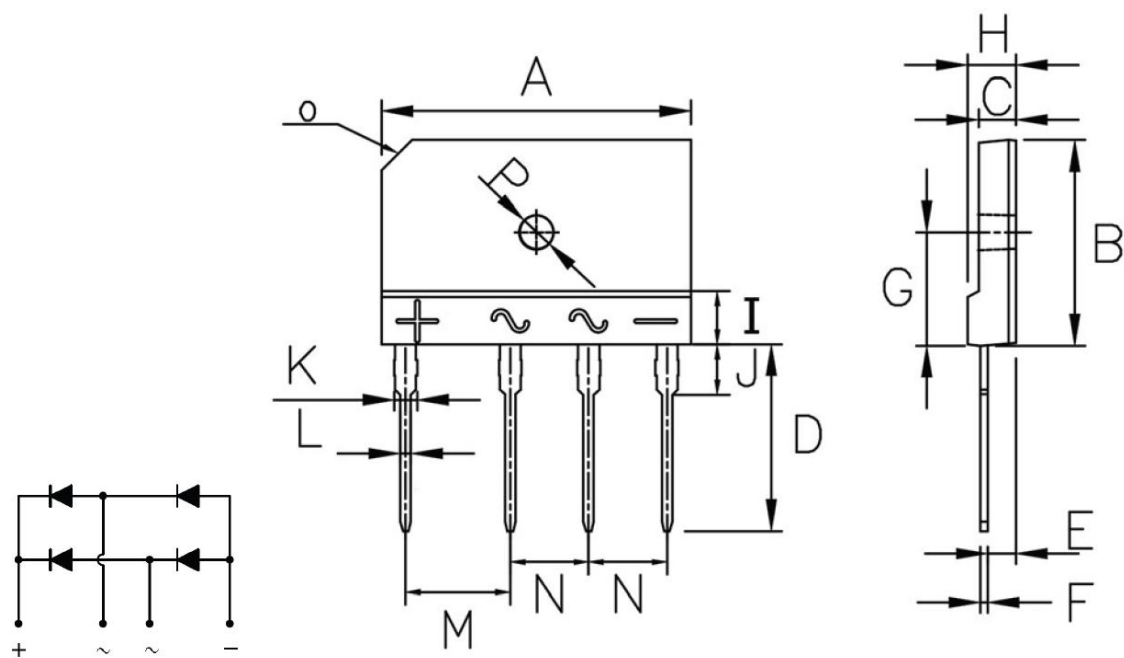
Package Type	Units			Dimension (unit: mm ³)	
	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Inner Box	Outer Box
GBJ	200	10	2000	306 x 108 x 42	322 x 246 x 252

Casing package

Package Type	Units					Dimension (unit: mm ³)		
	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Tube	Inner Box	Outer Box
GBJ	15	50	750	2	1500	473 x 42.5 x 6.8	490x 201 x 104	505 x 225 x 235

Package Outline Dimensions

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