

# GBU4005~GBU410

Rev.A .Feb.-2019

## 描述 / Descriptions

玻璃钝化整流桥，反向电压：50~1000V，正向电流：4.0A，GBU 封装。

Glass Passivated Bridge Rectifiers, Reverse Voltage:50~1000V,Forward Current:4.0A,GBU package.

## 特征 / Features

优化 PCB 板选择，塑料模具外壳，塑料的 UL 易燃性等级为 94V-0。

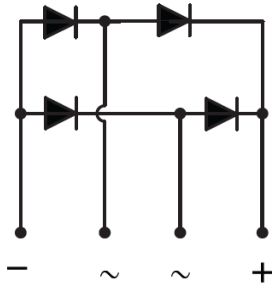
Ideal for printed circuit board, Case material molded plastic, The plastic material has U/L flammability classification 94V-0.

## 用途 / Applications

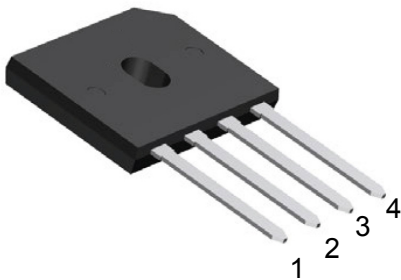
一般用途。

General purpose.

## 内部等效电路 / Equivalent Circuit



## 引脚排列 / Pinning



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

## 放大及印章代码 / h<sub>FE</sub> Classifications & Marking

见印章说明。 See Marking Instructions

**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

参数 Parameter	符号 Symbol	数值 Rating							单位 Unit
		GBU 4005	GBU 401	GBU 402	GBU 404	GBU 406	GBU 408	GBU 410	
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)	$I_{F(AV)}$	4							A
Maximum Average Forward Rectified Current @T <sub>C</sub> =100°C(without heatsink)		2.4							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	$I_{FSM}$	135							A
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	75							A <sup>2</sup> s
Typical Junction Capacitance Per Element (Note1)	C <sub>J</sub>	35							pF
Typical Thermal Resistance (Note2)	R <sub>θJc</sub>	5.5							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +150							°C
Storage Temperature Range	T <sub>stg</sub>	-55 to +150							°C

NOTE:

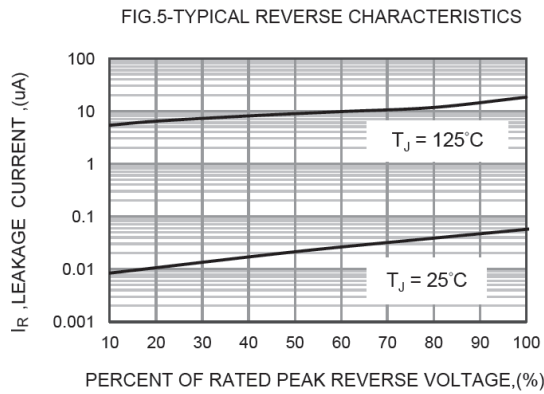
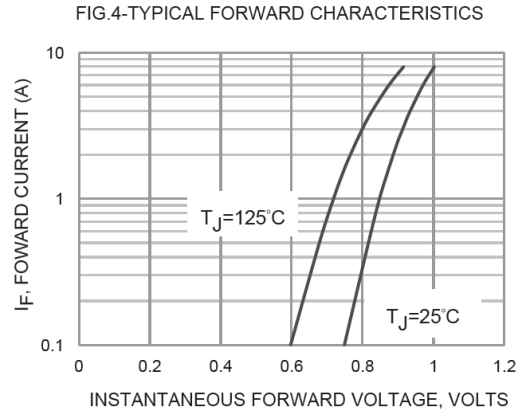
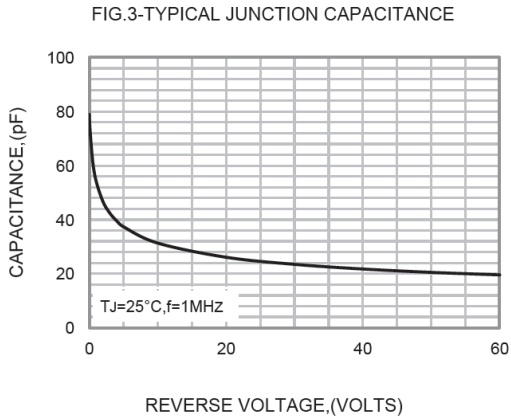
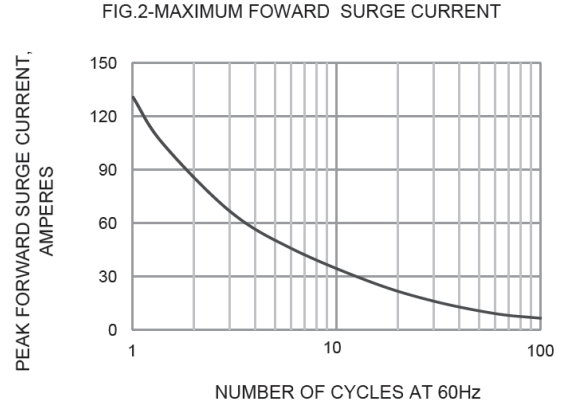
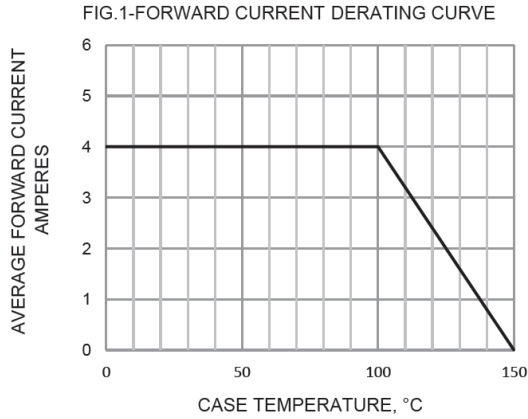
1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2.Device mounted on 150mm\*150mm\*1.6mm Cu Plate Heatsink.

**电性能参数 / Electrical Characteristics(Ta=25°C)**

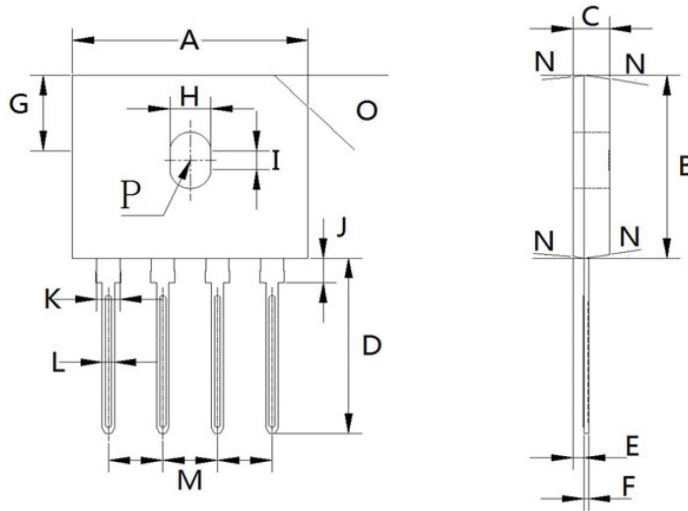
参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating	单位 Unit
Maximum Forward Voltage	$V_F$	I <sub>F</sub> =2.0A	1.0	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	T <sub>a</sub> =25°C	5.0	μA
		T <sub>a</sub> =125°C	500	

电参数曲线图 / Electrical Characteristic Curve



**外形尺寸图 / Package Dimensions**

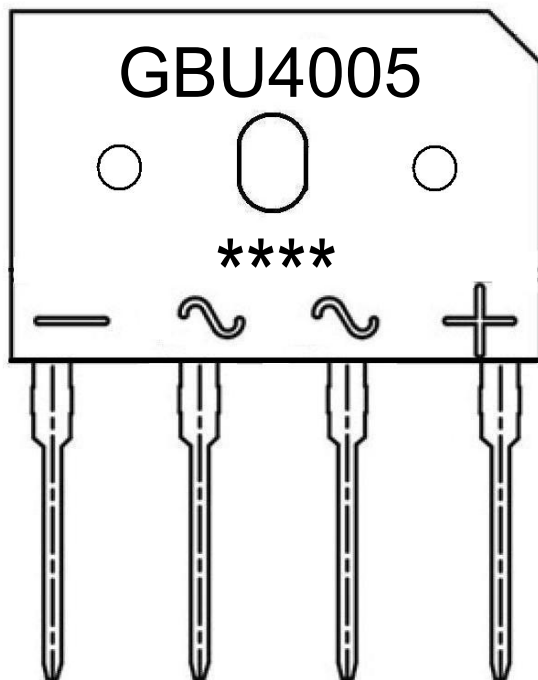
GBU Package Outline Dimensions



GBU mechanical data

UNIT		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
mm	max	22.30	18.80	3.56	18.00	1.00	0.56	7.90	4.10	2.16	2.75	2.35	1.27	5.33	7.0° TYPICAL	3.2X45°	1.90 RADIUS
	min	21.80	18.30	3.30	17.50	0.76	0.46	7.40	3.50	1.65	1.85	1.95	1.02	4.83			
mil	max	878	740	140	709	39	22	311	161	85	108	93	50	210	7.0° TYPICAL	126°45°	75 RADIUS
	min	858	720	130	689	30	18	291	138	65	73	77	40	190			

印章说明 / Marking Instructions



说明：

GBU4005： 为产品型号

\*\*\*\*： 为生产批号代码，随生产批号变化

Note:

GBU4005: Product Type.

\*\*\*\*: Lot No. Code, code change with Lot No.

**波峰焊温度曲线图(无铅) / Temperature Profile for Dip Soldering(Pb-Free)**



说明：

- 1、预热温度 25 ~ 150°C，时间 60 ~ 90sec;
- 2、峰值温度 255±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:25~150°C, Time:60~90sec.
- 2.Peak Temp.:255±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

**耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions**

温度：270±5°C

时间：10±1 sec.

Temp.:270±5°C

Time:10±1 sec

**包装规格 / Packaging SPEC.**

散件包装 / BULK

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm <sup>3</sup> )		
	Units/Bag 只/袋	Bags/Inner Box 袋/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Bag 袋	Inner Box 盒	Outer Box 箱
GBU	-	-	350	10	3500	-	314×106×39	330×242×237

**使用说明 / Notices**