

/ Descriptions

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

/ Features

PCB

UL

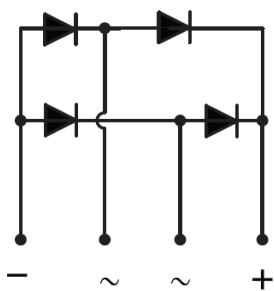
94V-0

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

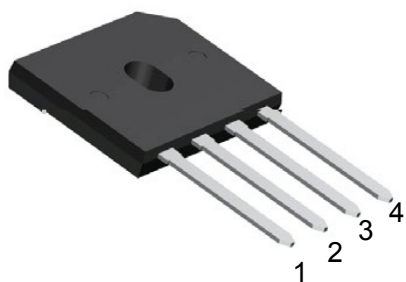
/ Applications

General purpose.

/ Equivalent Circuit



/ Pinning



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

/ h_{FE} Classifications & Marking

See Marking Instructions

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating							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 _C =100 (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 ² t Rating for Fusing (t<8.3ms)	I^2t	75							A ² s
Typical Junction Capacitance Per Element (Note1)	C_J	35							pF
Typical Thermal Resistance (Note2)	$R_{\theta Jc}$	5.5							/W
Operating Temperature Range	T_j	-55 to +150							
Storage Temperature Range	T_{stg}	-55 to +150							

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)

Parameter	Symbol	Test Conditions	Rating	Unit
Maximum Forward Voltage	V_F	$I_F=2.0A$	1.0	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	T _a =25	5.0	μA
		T _a =125	500	

/ Electrical Characteristic Curve

FIG.1-FORWARD CURRENT DERATING CURVE

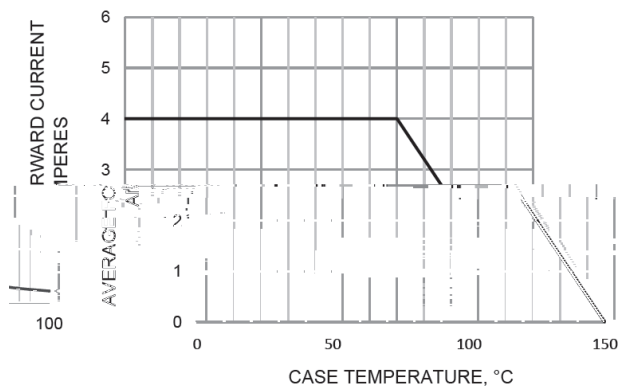
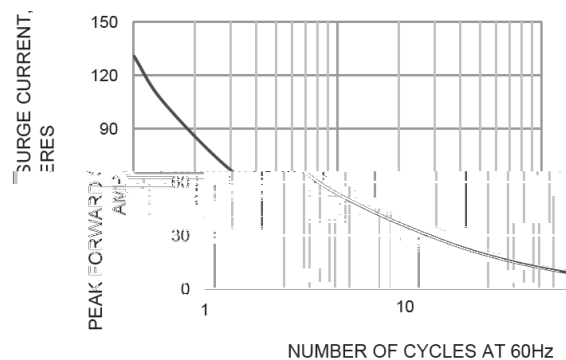


FIG.2-MAXIMUM FORWARD SURGE CURRENT



CS

FIG.3-TYPICAL JUNCTION CAPACITANCE

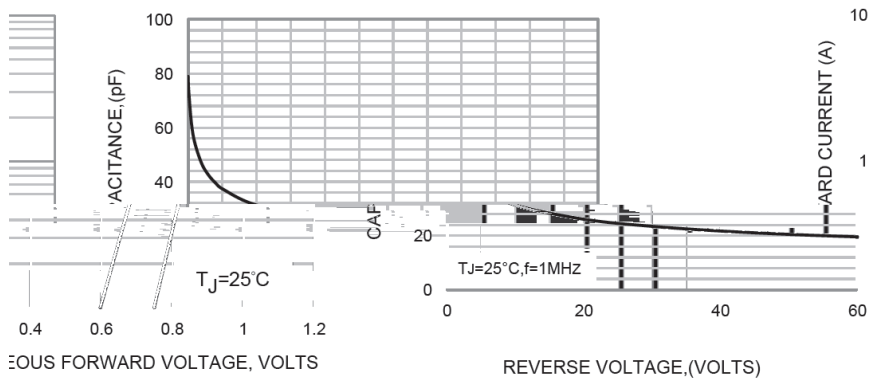


FIG.4-TYPICAL FORWARD CHARACTERISTICS

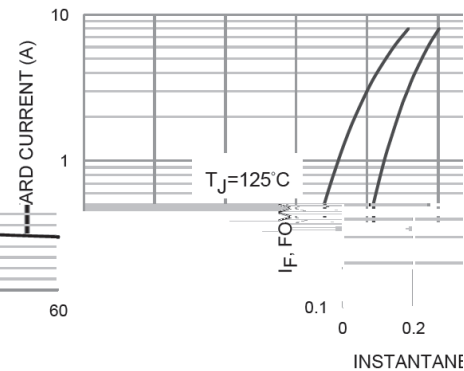
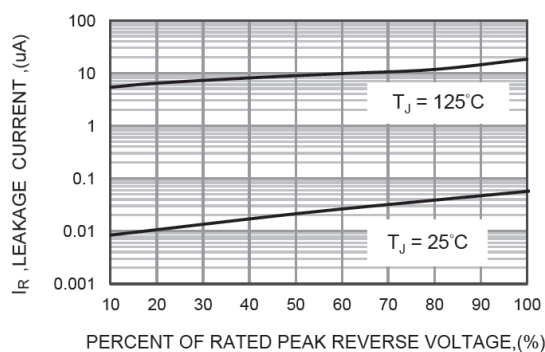
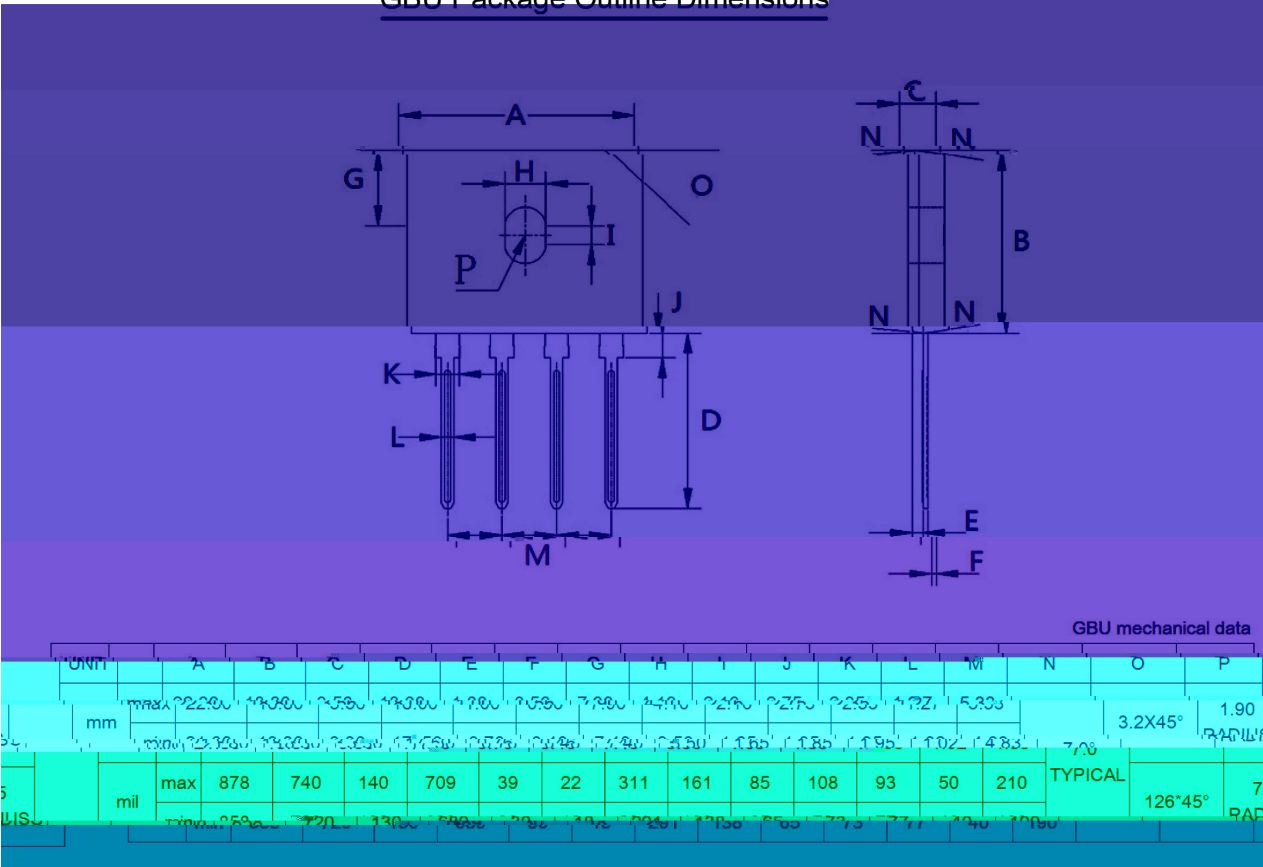


FIG.5-TYPICAL REVERSE CHARACTERISTICS



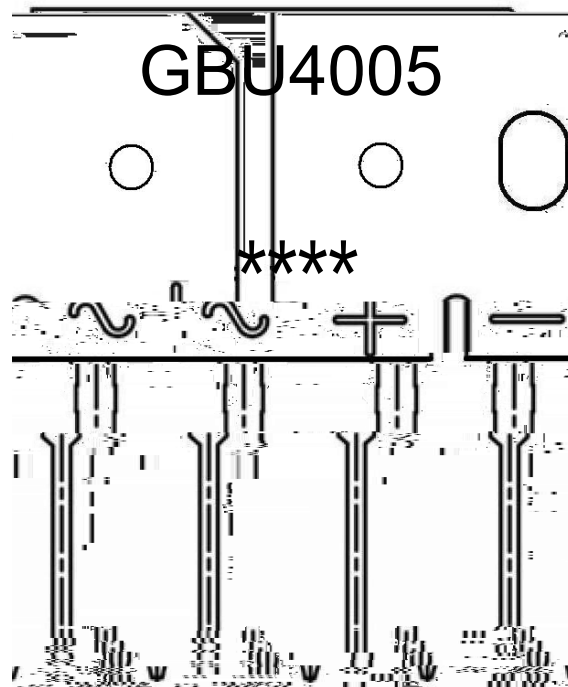
/ Package Dimensions

GBU Package Outline Dimensions





/ Marking Instructions



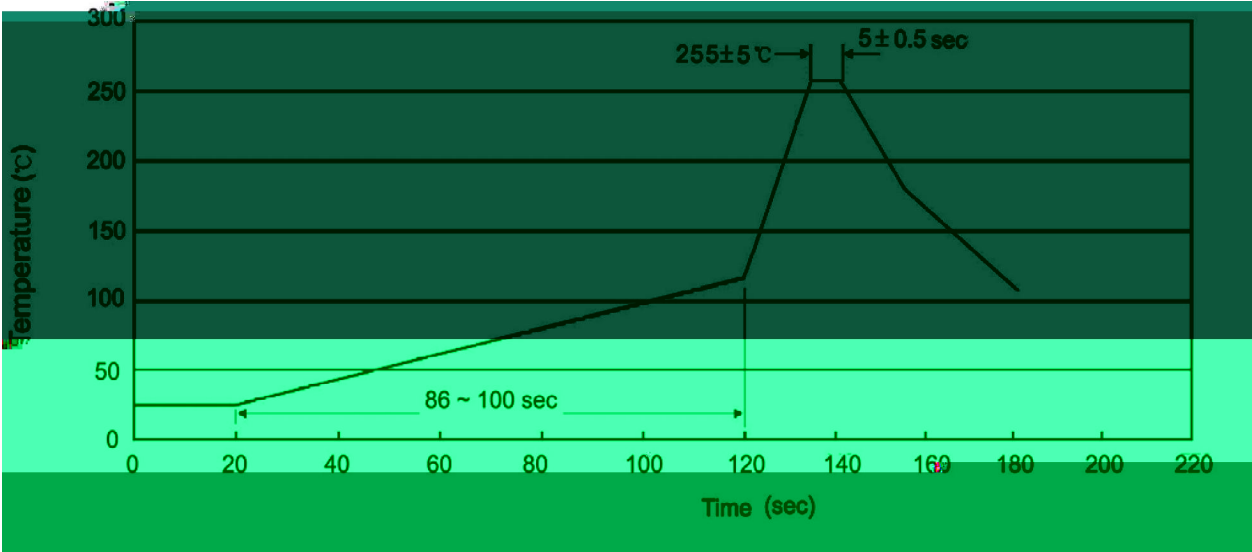
GBU4005:

Product Type.

****:

Lot No. Code, code change with Lot No.

() / Temperature Profile for Dip Soldering(Pb-Free)



Note:

- 1

25 150

60 90sec;
- 2

255 5

5 0.5sec;
- 3

2 10

/sec.
- 1.Preheating:25~150

, Time:60~90sec.
- 2.Peak Temp.:255 5

, Duration:5 0.5sec.
3. Cooling Speed: 2~10

/sec.

/ Resistance to Soldering Heat Test Conditions

270 5 10 1 sec. Temp.:270±5 Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type	Units					Dimension (unit mm ³)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
GBU	-	-	350	10	3500	-	314×106×39	330×242×237

/ Notices