GBU8005G~GBU810G

Rev.B .May.-2019

BLUE ROCKET ELECTRONICS

DATA SHEET

/ Descriptions

50~1000V 8.0A GBU

Glass Passivated Bridge Rectifiers, Reverse Voltage:50~1000V,Forward Current:8.0A,GBU package.

/ Features

PCB UL 94V-0

Ldeal for printed circuit bodrd,Case material molded plastic,The plastic material has U/L flammability classification 94V-0. Halogen free product.

/ Applications

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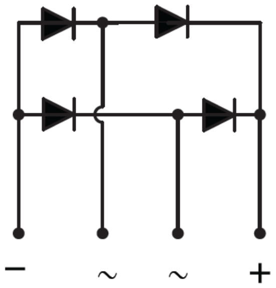
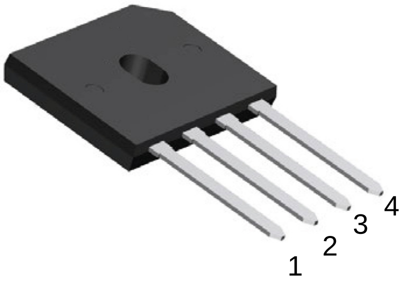
General purpose.

/ 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 8005G	GBU 801G	GBU 802G	GBU 804G	GBU 806G	GBU 808G	GBU 810G	
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)	$I_{F(AV)}$	8							A
Maximum Average Forward Rectified Current @T_C=100 (without heatsink)		3.2							A
Peak Forward Surage Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	220							A
I^2t Rating for Fusing (t<8.3ms)	I^2t	166							A^2s
Typical Junction Capacitance Per Element(Note1)	CJ	86							pF
Typical Thermal Resistance (Note2)	$R_{\theta Jc}$	1.6							/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=4.0A	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 FOWARD SURGE CURRENT

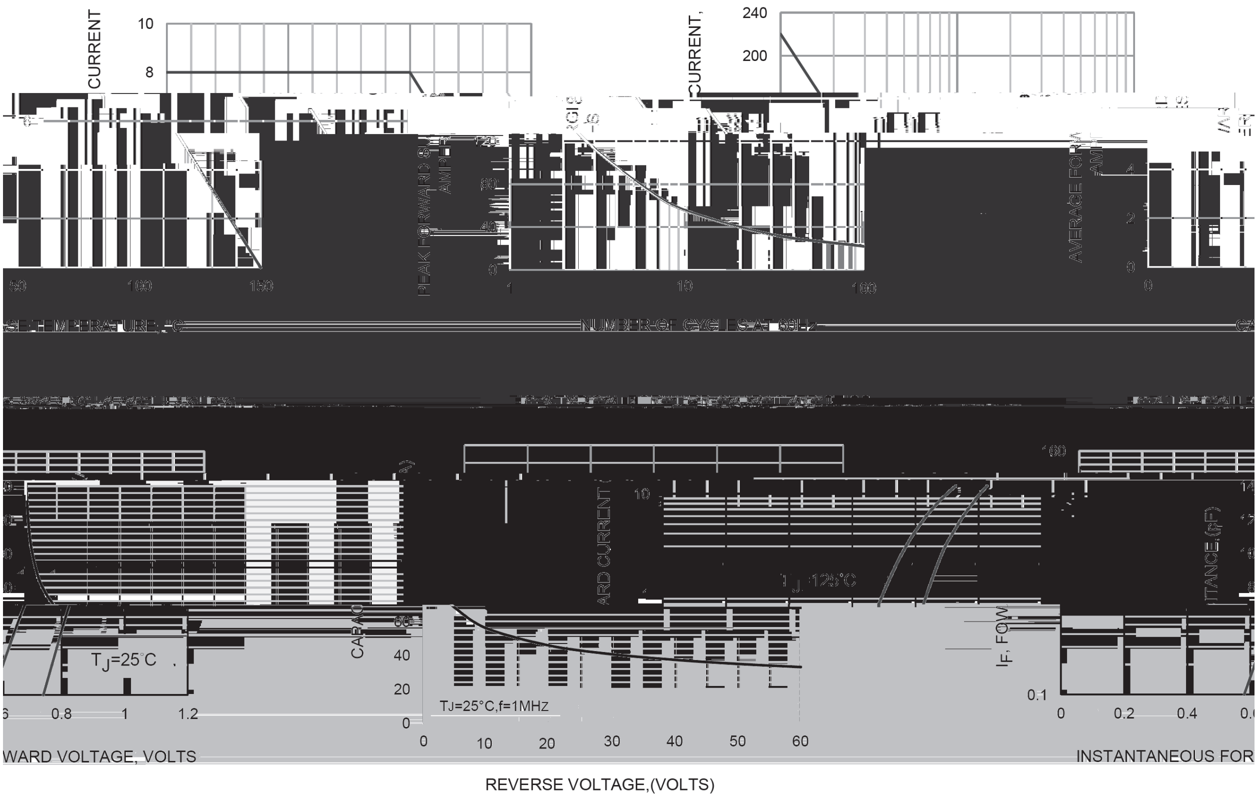
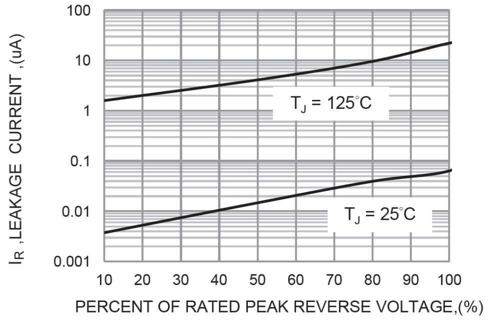
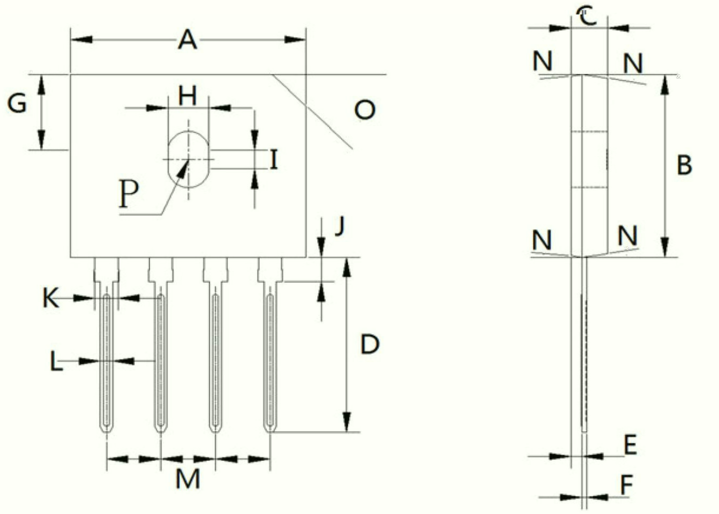


FIG.5-TYPICAL REVERSE CHARACTERISTICS



/ 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		126*45°	75 RADIU
	min	858	720	130	689	30	18	291	138	65	73	77	40	190			

/ Marking Instructions

GBU8005G

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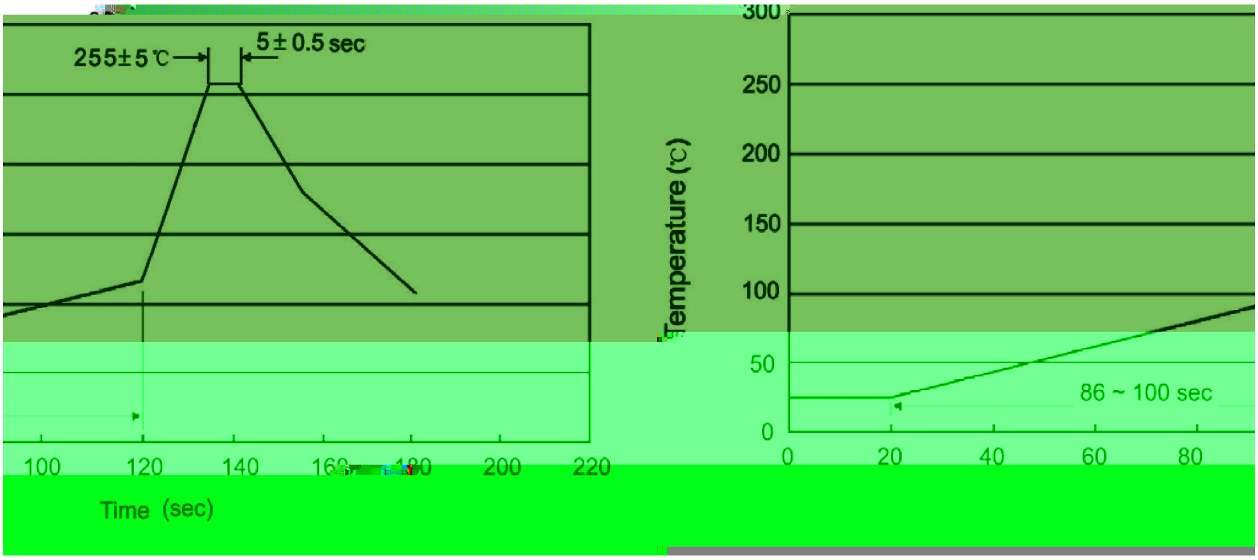
Note:

GBU8005G:	Product Type.
****:	Lot No. Code, code change with Lot No.

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



Note:

1 25 150 60 90sec; 1.Preheating:25~150 , Time:60~90sec.

2 255±5 5±0.5sec; 2.Peak Temp.:255±5 , Duration:5±0.5sec.

3 2 10 /sec. 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