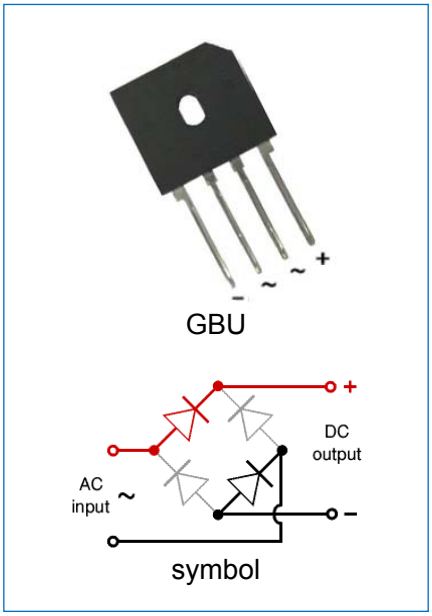
GBU816

GLASS PASSIVATED BRIDGE RECTIFIERS

Rev.1.1



DESCRIPTION:

- ✧ Plastic package has underwriters laboratory flammability classification 94V-0
- ✧ Glass passivated chip
- ✧ Ideal for printed circuit board
- ✧ High surge current capability
- ✧ General purpose use in AC/DC bridge full wave rectification ,for SMPS, lighting ballaster, adapter. etc.

MECHANICAL DATA

- ✧ Case: GBU molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Symbol marking on body.
- ✧ Weight:3.94g

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

(Rating at 25℃ ambient temperature unless otherwise specified.)

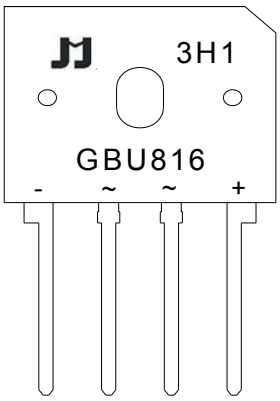
Parameter		Symbol	GBU816	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	1600	V
Maximum RMS voltage		V_{RMS}	1400	V
Maximum DC blocking voltage		V_{DC}	1600	V
Average rectified output current at T_C=100℃		I_O	8	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	200	A
Maximum forward voltage per diode @I_F=4A		V_F	1.1	V
Maximum DC reverse current at rated DC blocking voltage per diode	T_J=25℃	I_R	5	μA
	T_J=125℃		500	μA
Typical junction capacitance V_R=4.0V,f=1MHz		C_J	60	pF
Operating junction and storage temperature range		T_J,T_{STG}	-55 to +150	℃

THERMAL RESISTANCES

Symbol	Parameter	GBU816	Unit
$R_{th(j-c)}$	Junction to case (note1)	2.2	℃/W

Note1：Thermal resistance from junction to case mounted on 75mm*75mm*1.6mm Cu plate heatsink.

MARKING



GBU	Package: GBU
8	I_O:8A
16	V_{RRM}:1600V

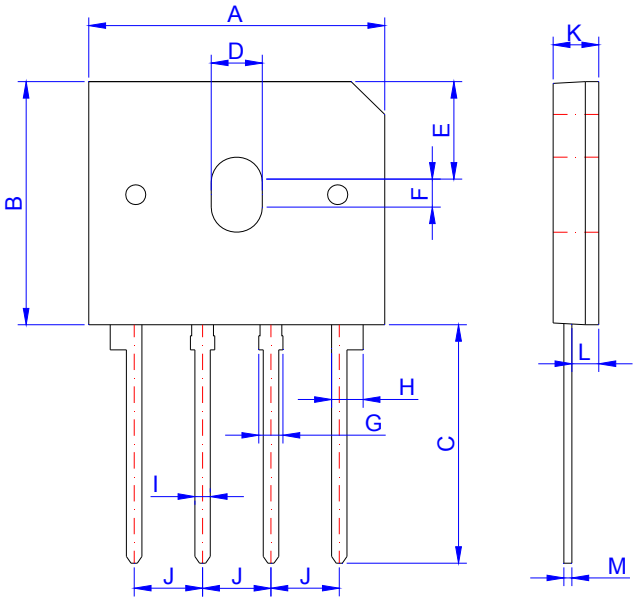
xH1：Month，1、2、3 ～ 9、A、B、C

3**x**1：

2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	…
O	P	Q	R	S	T	…

3H**x**：Batch number

PACKAGE MECHANICAL DATA



GBU

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	21.70	22.00	22.30	0.854	0.866	0.878
B	18.30	18.70	19.10	0.720	0.736	0.752
C	17.50	18.00	18.50	0.689	0.709	0.728
D	3.50	3.80	4.10	0.138	0.150	0.161
E		7.65			0.301	
F		1.90			0.075	
G		1.80			0.071	
H		2.30			0.091	
I	0.90		1.20	0.035		0.047
J	4.70	5.00	5.30	0.185	0.197	0.209
K	3.20	3.40	3.60	0.126	0.134	0.142
L		2.02			0.080	
M	0.45		0.60	0.018		0.024

PACKAGE INFORMATION-GBU

OUTLINE	UNIT WEIGHT (g/PCS) typ.	TUBE (PCS)	PER CARTON (PCS)
TUBE	3.94	20	2000

CHARACTERITICS CURVE

FIG.1: Typical forward characteristics

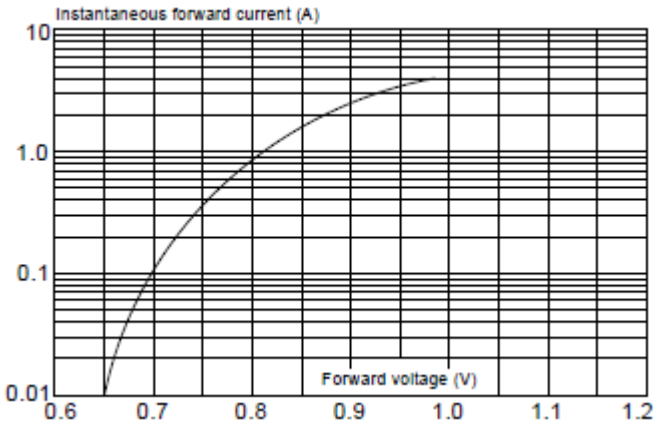


FIG.2: Typical reverse characteristics

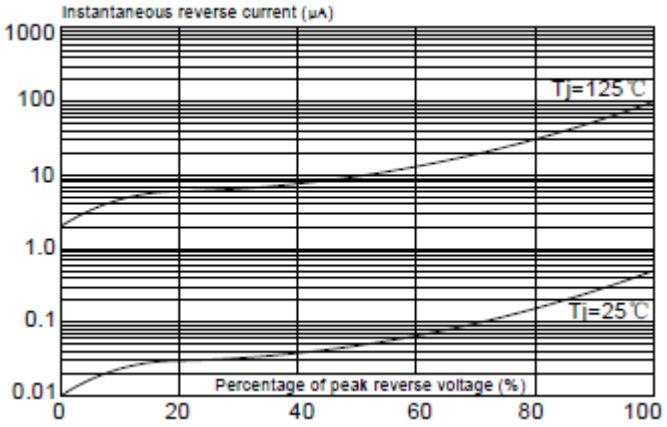


FIG.3: Maximum non-repetitive peak forward surge current

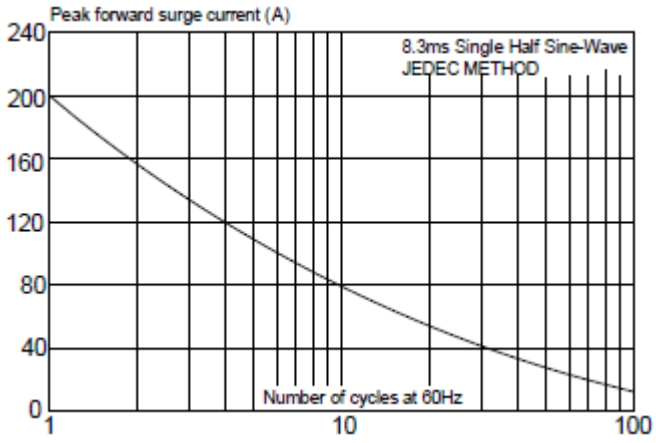


FIG.4: Average rectified output current derating curve