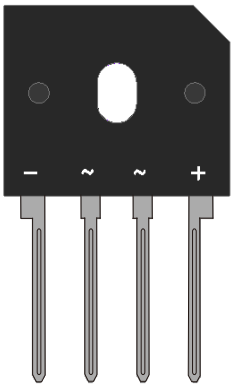
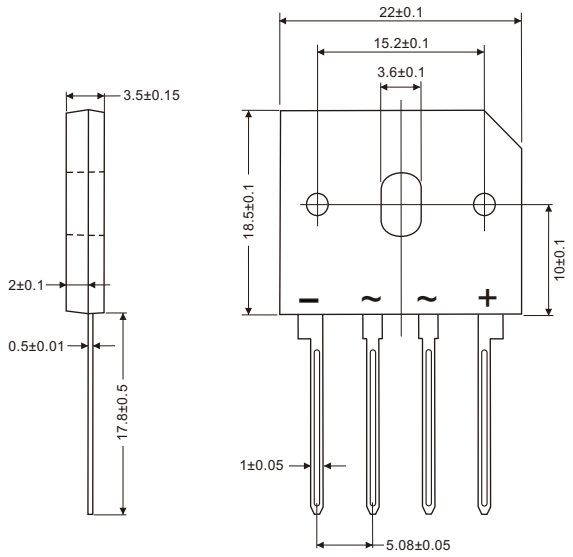
Nell High Power Products

Glass Passivated Single-Phase Bridge Rectifier, 10A

GBU10D Thru GBU10M



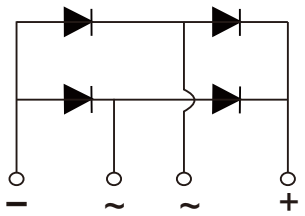


All dimensions in millimeters

FEATURES

- UL recognition file number E320098
- Typical IR less than 2.0 μA
- High surge current capability
- Low thermal resistance
- Compliant to RoHS
- Isolation voltage up to 2500V

RoHS COMPLIANT



TYPICAL APPLICATIONS

General purpose use in AC/DC bridge full wave rectification for big power supply, field supply for DC motor, industrial automation applications.

ADVANTAGE

- International standard package
  Epoxy meets UL 94 V-0 flammability rating
- Small volume, light weight
- Small thermal resistance
- High heat-conduction rate
- Low temperature rise
- High temperature soldering guaranteed :
  260°C/10 second, 2.3kg tension force
- Weight: 4.0g (0.14 ozs)

PRIMARY CHARACTERRISTICS	
$I_{F(AV)}$	10A
V_{RRM}	400V to 1000V
I_{FSM}	210A
I_R	5 μA
V_F	1.10V
$T_{J\ max.}$	150°C

MAJOR RATINGS AND CHARACTERISTICS (T_A = 25°C unless otherwise noted)							
PARAMETER	SYMBOL	GBU10					UNIT
		D	G	J	K	M	
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	1000	V
Peak reverse non-repetitive voltage	V_{RSM}	300	500	700	900	1100	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	V
Maximum average forward rectified output current, T_c = 85°C	$I_{F(AV)}$	10					A
Peak forward surge current single sine-wave superimposed on rated load	I_{FSM}	210					A
Rating (non-repetitive, for t greater than 1 ms and less than 8.3 ms) for fusing	I^2t	183					A^2s
RMS isolation voltage from case to leads	V_{ISO}	2500					V
Operating junction storage temperature range	T_J	-40 to 150					°C
Storage temperature range	T_{STG}	-40 to 150					°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)								
PARAMETER	TEST CONDITIONS	SYMBOL	GBU10					UNIT
			D	G	J	K	M	
Maximum instantaneous forward drop per diode	I_F = 5A	V_F	1.10					V
Maximum reverse DC current at rated DC blocking voltage per diod	T_A = 25°C	I_R	5					μA
	T_A = 150°C		500					

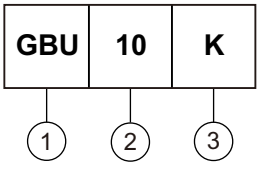
THERMAL AND MECHANICAL (T_A = 25°C unless otherwise noted)								
PARAMETER	TEST CONDITIONS	SYMBOL	GBU10					UNIT
			D	G	J	K	M	
Typical thermal resistance junction to case	Single-side heat dissipation, sine half wave	$R_{\theta JC}$(1)	2.2					°C/W
Mounting torque ± 10 % to heatsink M3	A mounting compound is recommended and the torque should be rechecked after a period of 3 hours to allow for the spread of the compound.		0.8					N·m
Approximate weight			4.0					g

Notes

(1) With heatsink, single side heat dissipation, half sine wave. (100x100x1.6 mm copper plate heatsink)

Ordering Information Tabel

Device code



1 - Product type : "GBU" Package,1Ø Bridge

2 - $I_{F(AV)}$ rating : "10" for 10A

3 - Voltage code : D = 200V
G = 400V
J = 600V
K = 800V
M = 1000V

Fig.1 Derating curve for output rectified current

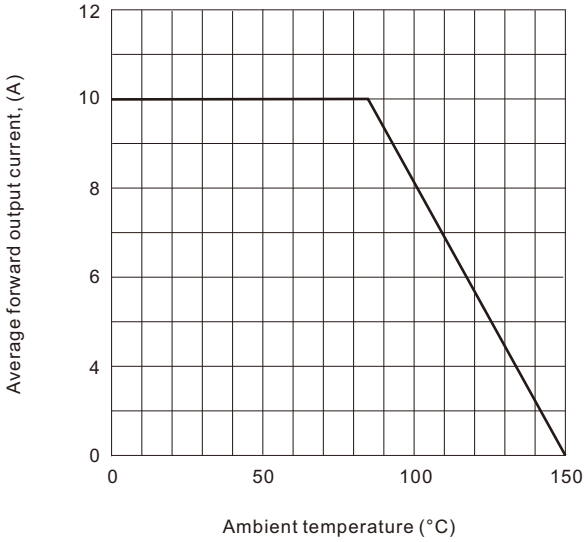


Fig.2 Maximum non-repetitive peak forward surge current per bridge element

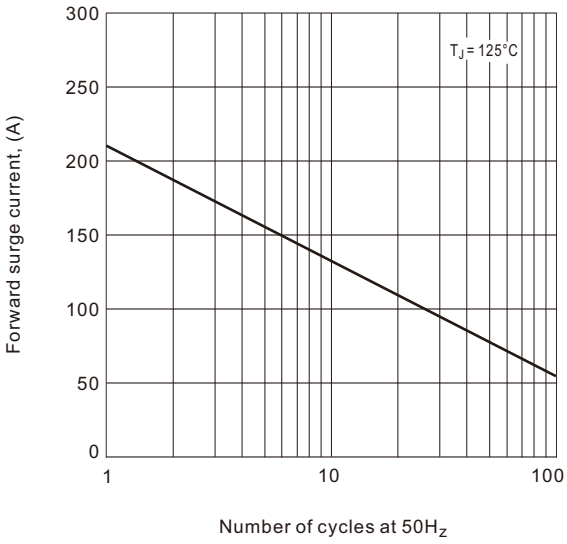


Fig.3 Typical reverse characteristics per bridge element

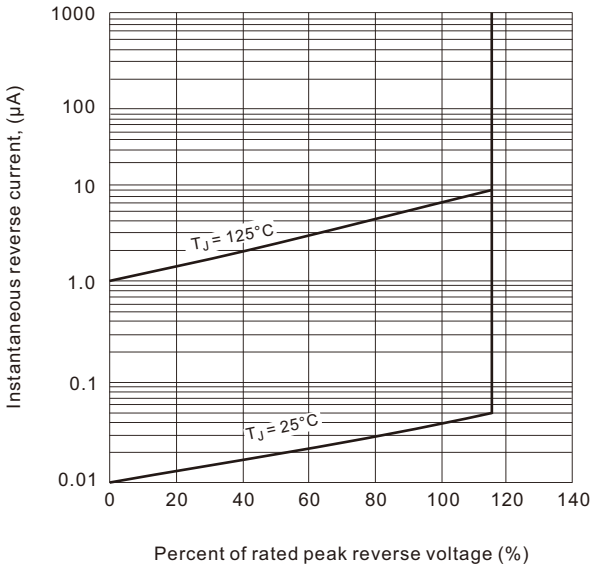


Fig.4 Typical forward characteristics per bridge element

