



GBU6005 ~ GBU610

Voltage 50V ~ 1000V
6.0Amp Glass Passivated Bridge Rectifiers

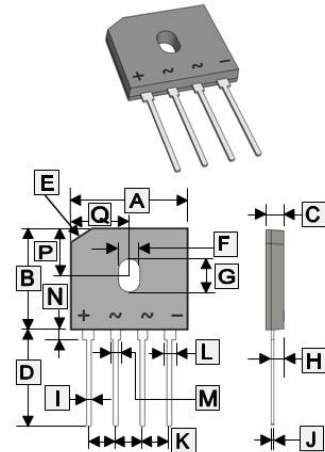
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

FEATURES

- Surge overload rating -175 amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- Plastic material has Underwriters Laboratory flammability classification 94V-0
- Mounting position: Any

GBU



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	21.80	22.20	I	0.9	1.2
B	18.30	19.10	J	0.46	0.56
C	3.37	3.53	K	4.80	5.30
D	17.27	18.29	L	2.16	2.54
E	3.2 x 45°		M	1.65	2.03
F	3.40	4.10	N	1.45	1.85
G	5.40	5.90	P	9.80	10.20
H	2.30	2.70	Q	10.90	11.10

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter	Symbol	Part Number							Unit
		GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input 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 (with heat sink) ²	$I_{(AV)}$	6							A
Rectified Current $T_C=100^\circ\text{C}$ (without heat sink)		2.8							
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	175							A
Maximum Forward Voltage @ 3.0A	V_F	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage	$T_J=25^\circ\text{C}$	10							μA
	$T_J=125^\circ\text{C}$	500							
I^2t Rating for Fusing ($t<8.3\text{ms}$)	I^2t	127							A^2s
Typical Junction Capacitance Per Element ¹	C_J	50							pF
Typical Thermal Resistance	$R_{\theta JC}$	2.2							$^\circ\text{C/W}$
Operating and Storage temperature range	T_J, T_{STG}	-55~150							$^\circ\text{C}$

Notes :

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 75mm*75mm*1.6mm Cu plate heat sink.



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RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

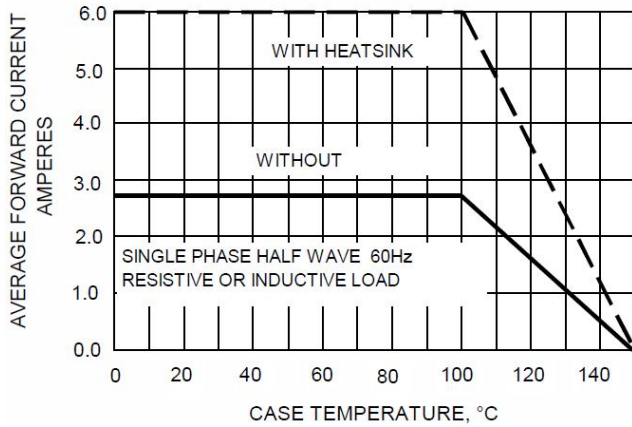


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

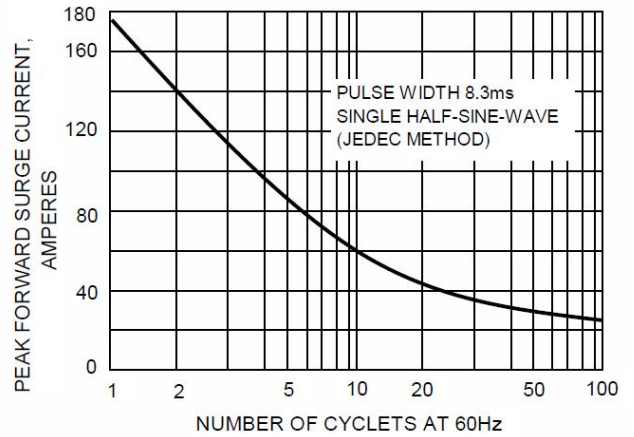


FIG.3-TYPICAL JUNCTION CAPACITANCE

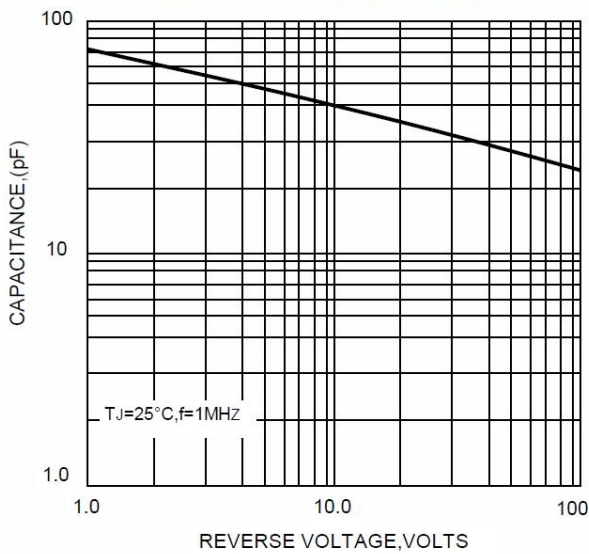


FIG.4-TYPICAL FORWARD CHARACTERISTICS

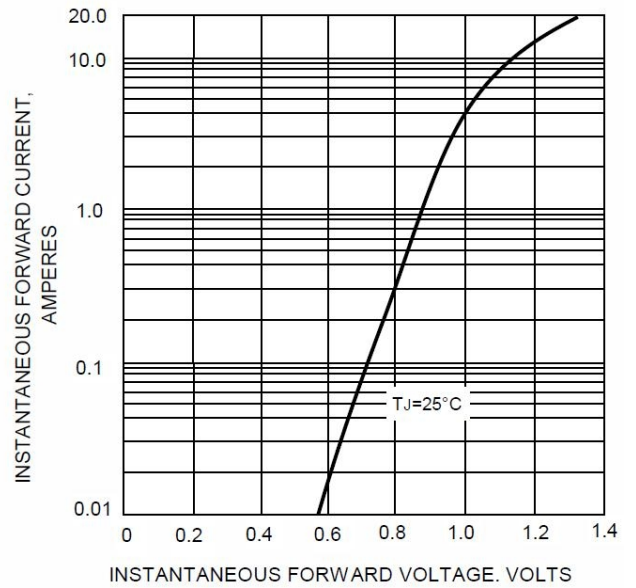


FIG.5-TYPICAL REVERSE CHARACTERISTICS

