Elektronische Bauelemente

GBL610

Voltage 1000V

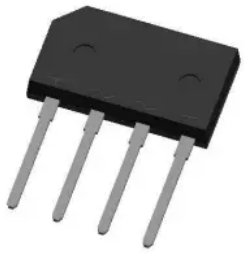
6.0 Amp Glass Passivated Bridge Rectifiers

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Glass Passivated Chip Junction
- Thin Single In-Line Package
- High Surge Current Capability
- Solder Dip 275℃ Max. 7s, per JESD 22-B106

GBL



APPLICATIONS

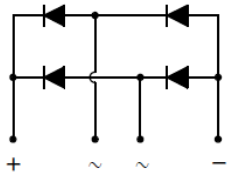
General purpose use in AC/DC bridge full wave rectification for switching power supply, home appliances, office equipment, industrial automation applications.

MECHANICAL DATA

- Package: GBL
  Molding Compound Meets UL 94V-0 Flammability Rating
- Terminals: Tin Plated Leads, Solderable per J-STD-002 and JESD22-B102
- Polarity: As Marked

ORDER INFORMATION

Part Number	Type
GBL610	Lead (Pb)-free
GBL610-C	Lead (Pb)-free and Halogen-free



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
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	1000	V
Maximum RMS Voltage		V_{RMS}	700	
Maximum DC Blocking Voltage		V_{DC}	1000	
Average Rectified Output Current [3] @60Hz sine wave, R-load, T_C=100℃		I_O	6	A
Forward Surge Current (Non-repetitive) @60Hz sine wave, 1 cycle, T_J=25℃		I_{FSM}	150	A
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T_J=25℃			280	
Current Squared Time [1]		I^2t	78.4	A^2S
Maximum Instantaneous Forward Voltage Drop per diode @I_F=3A		V_F	1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage per diode	T_J=25℃	I_R	5	μA
	T_J=125℃		100	
Typical Junction Capacitance [2]		C_J	45	pF
Thermal Resistance from Junction-Ambient		$R_{\theta JA}$	47	℃/W
Thermal Resistance from Junction-Case [3]		$R_{\theta JC}$	4.3	
Junction & Storage Temperature Range		T_J,T_{STG}	150, -55~150	℃

Notes:
1. 1ms≤t<8.3ms, T_J=25℃, Rating of per diode.
2. Measured at 1MHz and applied reverse voltage of 4V D.C.
3. Mounted on 90mm x 90mm x 1.6mm Heatsink.

RATINGS AND CHARACTERISTIC CURVES

FIG1:Io-Ta Curve

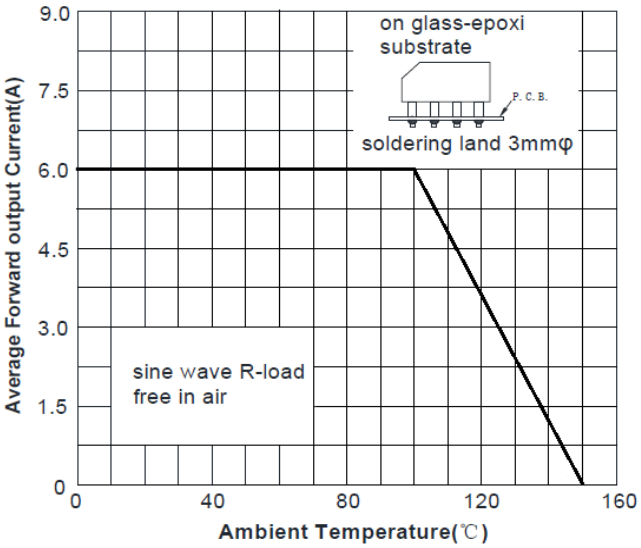


FIG2:Surge Forward Current Capability

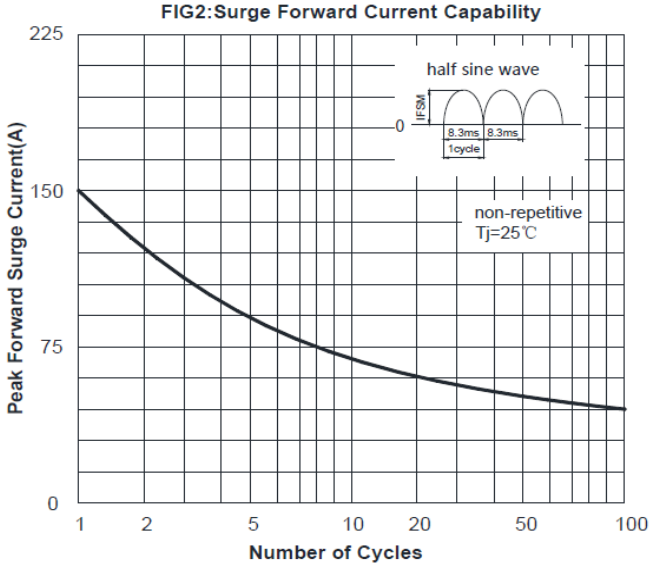


FIG3: Typical Forward Voltage

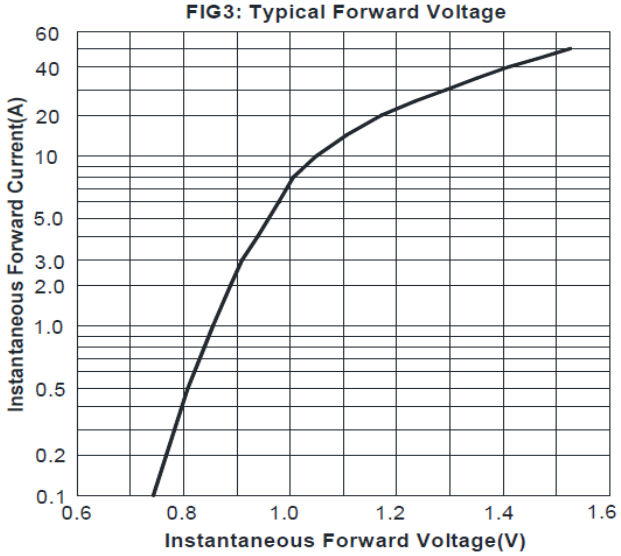
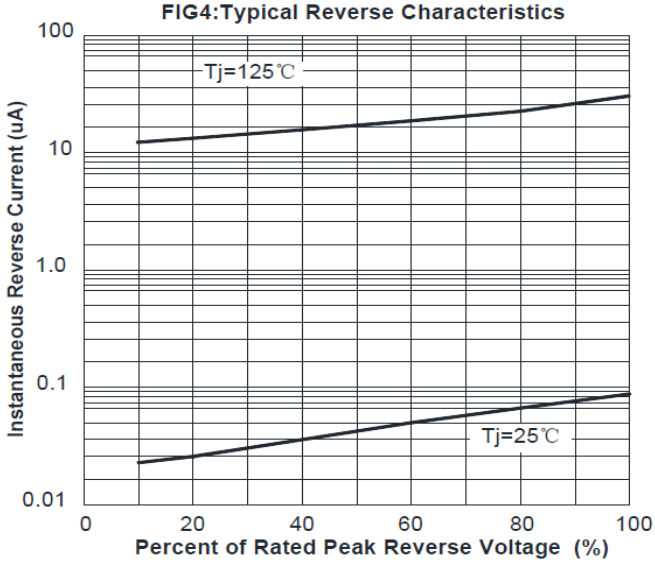


FIG4:Typical Reverse Characteristics



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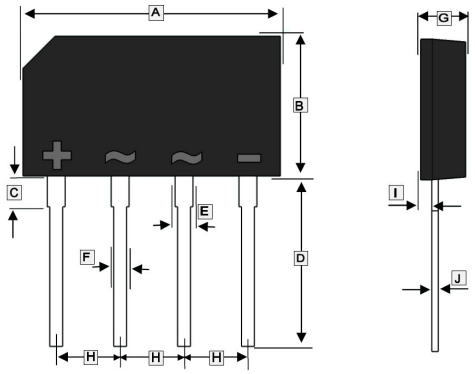
PACKAGE OUTLINE DIMENSION

GBL



REF.	Millimeter	
	Min.	Max.
A	19.20	21.20
B	10.50	11.50
C	2.00	3.00
D	12.70	15.00
E	1.20	1.80
F	0.90	1.20
G	3.00	4.00
H	4.80	5.30
I	0.80	1.20
J	0.30	0.70