GBL4A thru GBL4M

Glass Passivated Single-Phase Bridge Rectifier

Reverse Voltage 50~1000V Ountput Current 4.0A

Features



- Glass passivated Bridge Rectifiers
- Ideal for PCB
- High surge current capability
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260℃/10 seconds
- Halogen-free according to IEC 61249-2-21 definition

Mechanical Data

- Case:GBL,Molding compound meets UL 94V-0 flammability rating
- Terminals:Matte tin plated leads,solderable per MIl-STD-750 Method 2026,J-STD-002 and JESD22-B102, meets JESD 201 class 1A whisker test

Typical Applications

General purpose use in ac-to-dc bridge full wave rectification for TV,Monitor,SMPS,Adapter, Printer,Audio equipment,and Home Applications application

Maximum Ratings (TA = 25 °C unless otherwise noted)

Parameter	Symbol	GBL4A	GBL4B	GBL4D	GBL4G	GBL4J	GBL4K	GBL4M	Unit
Maximum repetitive 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	VDC	100	100	200	400	600	800	1000	V
Maximum average output rectified current T_C=50℃ T_A=40℃	$I_{F(AV)}$	4.0(1) 3.0(2)							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150							A
Rating for fusing (t≤8.3ms)	I^2t	93							A^2S
Operating junction and storage temperature range	T_J, T_{STG}	-55 to 150							°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Parameter	Test Conditions	Symbol	GBL4A	GBL4B	GBL4D	GBL4G	GBL4J	GBL4K	GBL4M	Unit
Maximum instantaneous forward voltage	I_F=2.0A	V_F	1.0							Volts
Maximum DC reverse current at rated DC blocking voltage	T_A=25℃ T_A=150℃	I_R	10.0 500							μA
Typical junction capacitance	4.0 V, 1 MHz	C_J	95				40			pF
Typical thermal resistance(1)	juntion to ambient	$R_{\theta JA}$	22(2)							℃/W
	juntion to case	$R_{\theta JL}$	3.5(1)							

Note:1.Unit mounted on 3.0×3.0×0.11" thick（7.5×7.5×0.3 cm）Al.plate

2.Unit mounted on P.C.B. at 0.375"（9.5mm）lead length and 0.5×0.5" （13×13mm）copper pads

Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

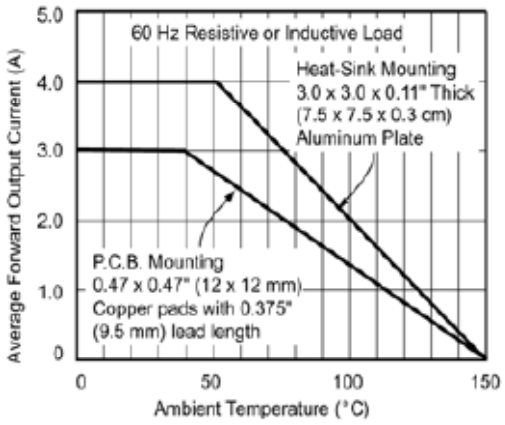


Figure 1. Derating Curves Output Rectified Current

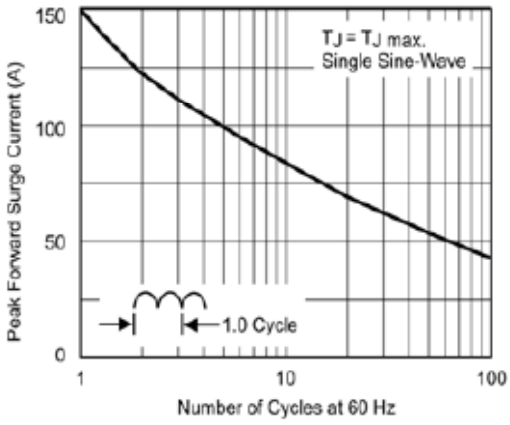
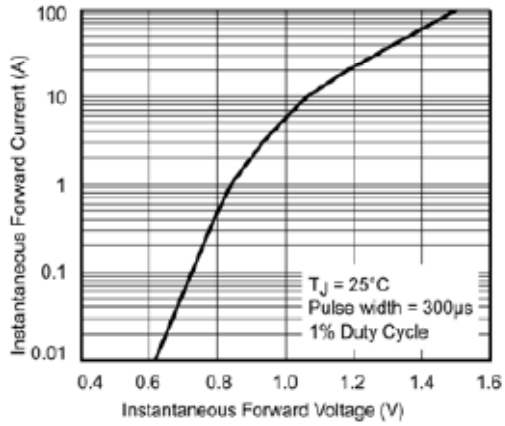


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Leg



gure 3. Typical Forward Voltage Characteristics Per Leg

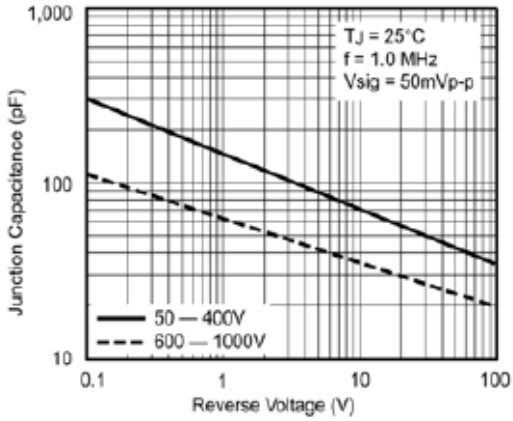


Figure 5. Typical Junction Capacitance Per Leg

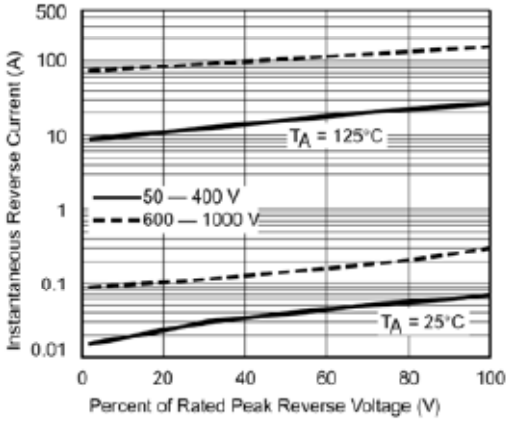


Figure 4. Typical Reverse Characteristics Per Leg

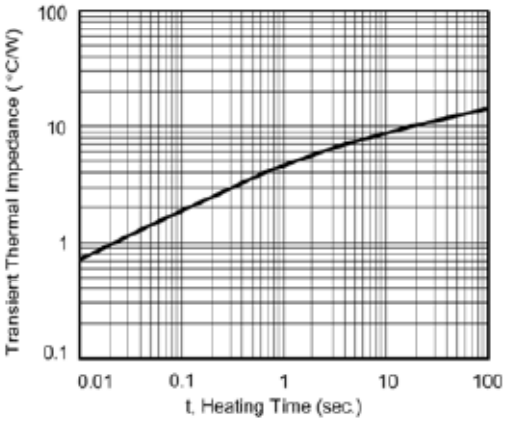
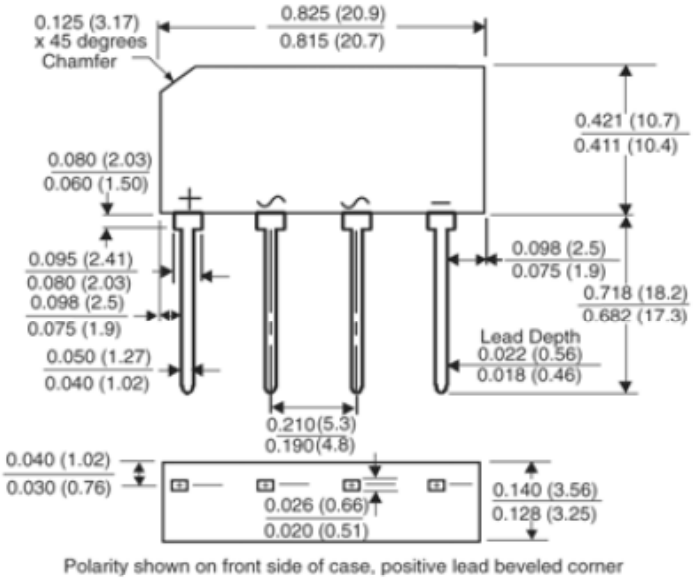


Figure 6. Typical Transient Thermal Impedance Per Leg

Package Outline Dimensions

Unit:inches(mm)



Polarity shown on front side of case, positive lead beveled corner

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