Elektronische Bauelemente

GBJL5006 ~ GBJL5010

Voltage 600V ~ 1000V

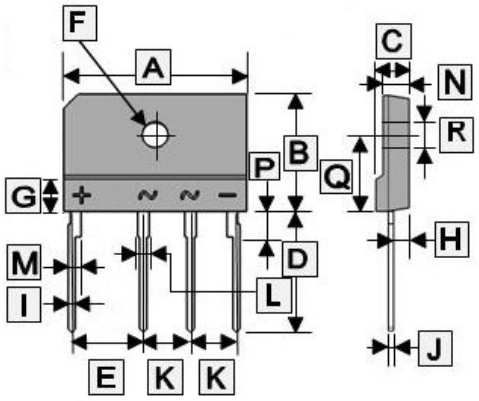
50Amp Glass Passivated Bridge Rectifiers

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

FEATURES

- Thin Single In-Line package
- Ideal for printed circuit boards
- Glass Passivated chip junction
- Low profile package
- High Surge current capability
- High case dielectric strength of 2500 V_{RMS}
- Plastic package has Underwrites Laboratory Flammability Classification 94V-0

GBJL



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	27.1	27.7	J	0.3	0.7
B	14	14.6	K	7.3	7.7
C	3.6	4	L	2.5	2.9
D	14.5	15.5	M	2.6	3
E	9.8	10.2	N	2.8	3.2
F	3.3	3.7	P	2	2.4
G	1.8 REF.		Q	8.4	9.2
H	2.5	2.9	R	3	3.4
I	0.9	1.1			

MECHANICAL DATA

- Case: GBJL; Epoxy meets UL-94V-0 Flammability rating
- Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102 E3 suffix for customer grade, meet JESD 201
- High temperature soldering guaranteed: Solder Dip 270°C, 10seconds
- Polarity: As marked on body
- Mounting Torque: 10cm-kg (8.8inches-lbs) max
- Recommend Torque: Mounting Torque: 5.7cm-kg (5inches-lbs)

ORDER INFORMATION

Part Number	Type
GBJL5006~GBJL5010	Lead (Pb)-free
GBJL5006-C~GBJL5010-C	Lead (Pb)-free and Halogen-free

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

Parameter		Symbol	Part Number			Unit
			GBJL5006	GBJL5008	GBJL5010	
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	600	800	1000	V
Maximum RMS Voltage		V_{RMS}	420	560	700	
Maximum DC Blocking Voltage		V_{DC}	600	800	1000	
Average Forward Rectified Output Current [1]	T_C=70°C	I_F	50			A
Peak forward surge current 8.3 ms single sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	450			A
Current Squared Time (t<8.3ms)		I^2t	840			A^2S
Maximum Instantaneous Forward Voltage Drop per leg @ I_F=25A		V_F	1.6			V
Maximum DC Reverse Current at Rated DC Blocking Voltage per leg	T_A=25°C	I_R	5			μA
	T_A=125°C		150			
Thermal Resistance per leg	Without Heatsink	$R_{\theta JA}$	22			°C/W
	With Heatsink [1]	$R_{\theta JC}$	1.5			
Junction and Storage Temperature Range		T_J,T_{STG}	-55~150			°C

Notes:
1. Unit case mounted on Al plate heatsink.

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RATINGS AND CHARACTERISTIC CURVES

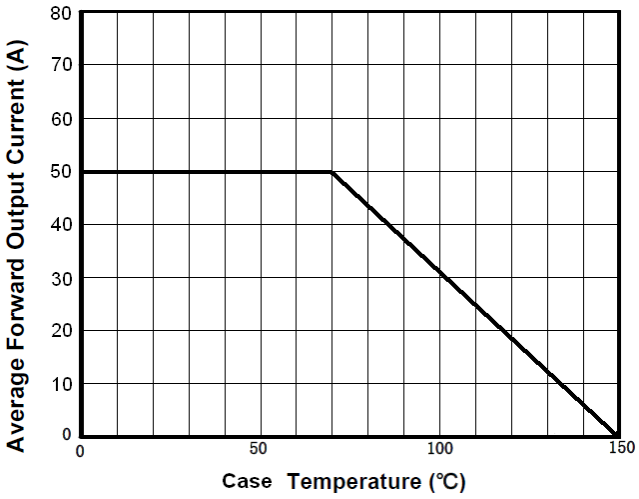

Figure 1. Derating Curve Output Rectified Current

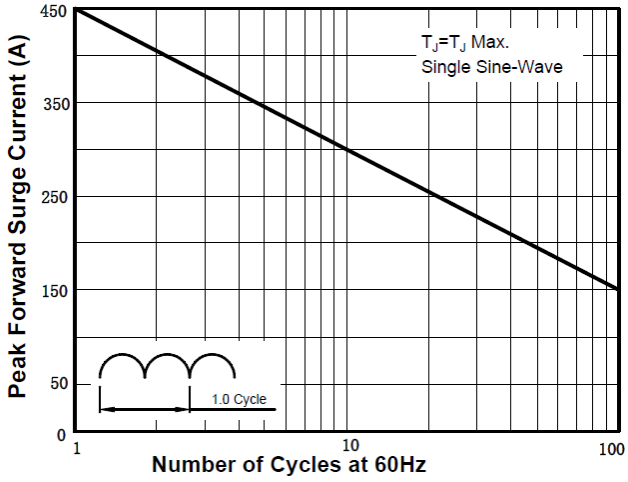

Figure 2. Maximum Non-Repetitive Peak Forward Surge Current per Diode

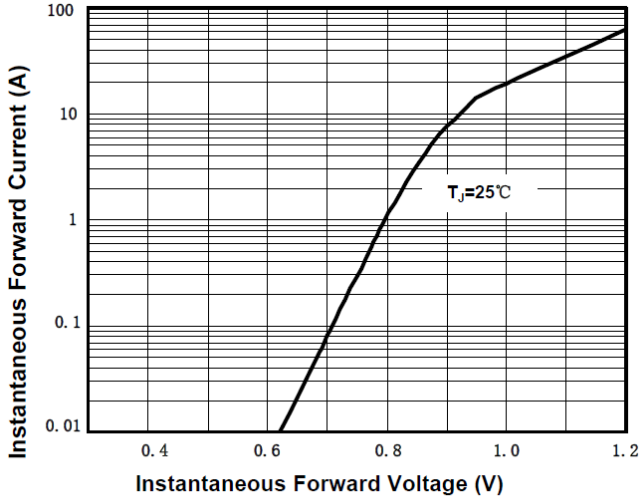

Figure 3. Typical Forward Characteristics Per Diode

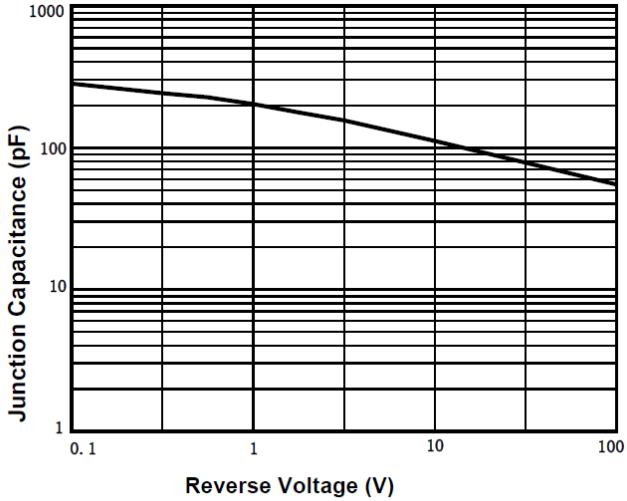

Figure 4. Typical Junction Capacitance Per Diode

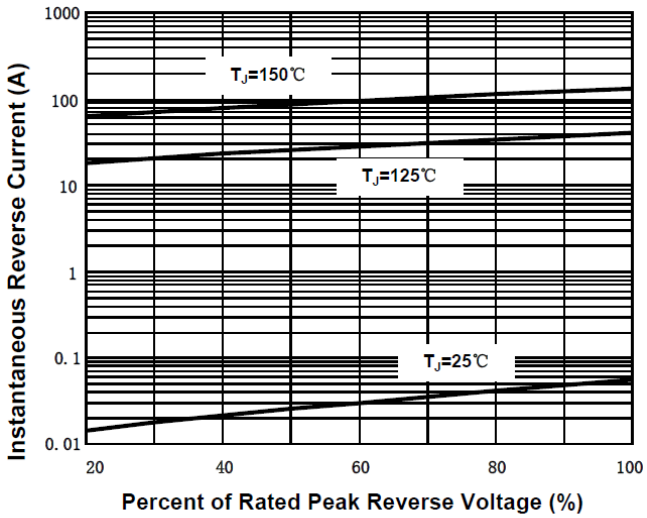

Figure 5. Typical Reverse Characteristics Per Diode