

GBJ/KBJ50005 thru GBJ/KBJ5010

50.0 A Single-Phase Silicon Bridge Rectifier Rectifier Reverse Voltage 50 to 1000V

Features

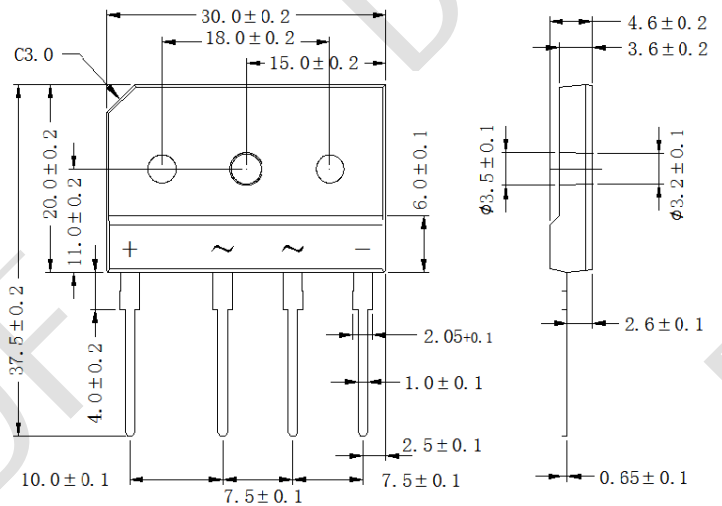
- Ideal for printed circuit board mounting
- This series is UL listed under the Recognized Component Index, file number E484648
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Built-in printed circuit board stand-offs
- High case dielectric strength
- High temperature soldering guaranteed 260°C /5 seconds at 5 lbs (2.3kg) tension

Mechanical Data

Case: Reliable low cost construction utilizing molded plastic technique

Terminals: Plated leads solderable per MIL-STD-202, Method 208

Mounting Position: Any



Dimensions in inches and (millimeters)

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

Parameter	Symbol	GBJ/KBJ 50005	GBJ/KBJ 5001	GBJ/KBJ 5002	GBJ/KBJ 5004	GBJ/KBJ 5006	GBJ/KBJ 5008	GBJ/KBJ 5010	unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS bridge input voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note2) Rectified Current @ T _C =100°C	IF(AV)	50.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	IFSM	500							A
Operating junction and storage temperature range	T _J , T _{STG}	-55 to + 150							°C

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	GBJ/KBJ 50005	GBJ/KBJ 5001	GBJ/KBJ 5002	GBJ/KBJ 5004	GBJ/KBJ 5006	GBJ/KBJ 5008	GBJ/KBJ 5010	Unit
Maximum instantaneous forward voltage drop per leg at 25.0A	V _F	1.1							V
Maximum DC reverse current at rated T _A = 25°C DC blocking voltage per element T _A = 125°C	I _R	10 500							μA

Notes: (1) Thermal resistance from Junction to Ambient on P.C. board mounting.

(2). Device mounted on 300mm*300mm*1.6mm cu plate heatsink.

Rating and Characteristic Curves ($T_A=25^{\circ}\text{C}$ Unless otherwise noted) GBJ/KBJ50005 thru GBJKBJ5010

FIG.1-FORWARD CURRENT DERATING CURVE

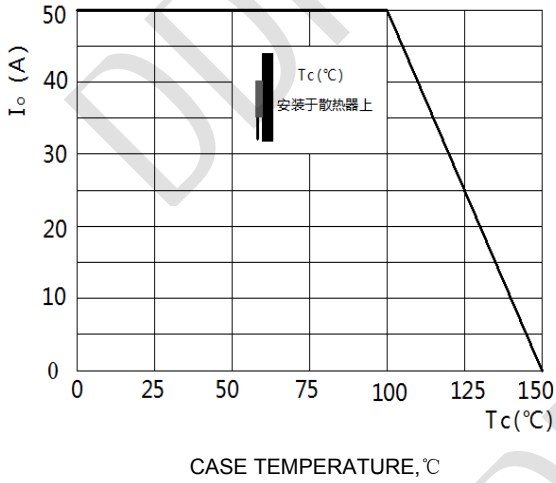


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

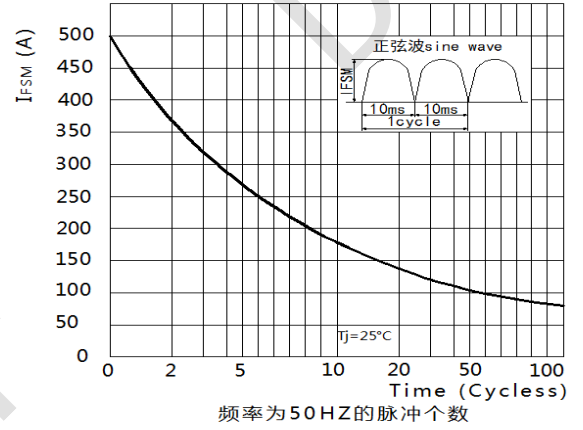


FIG.3-TYPICAL REVERSE

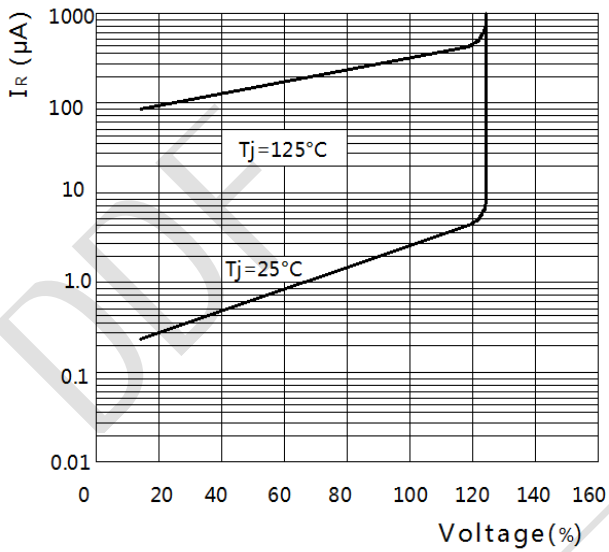


FIG.4-TYPICAL FORWARD CHARACTERISTICS

