

25.0 A Single-Phase Silicon Bridge Rectifier

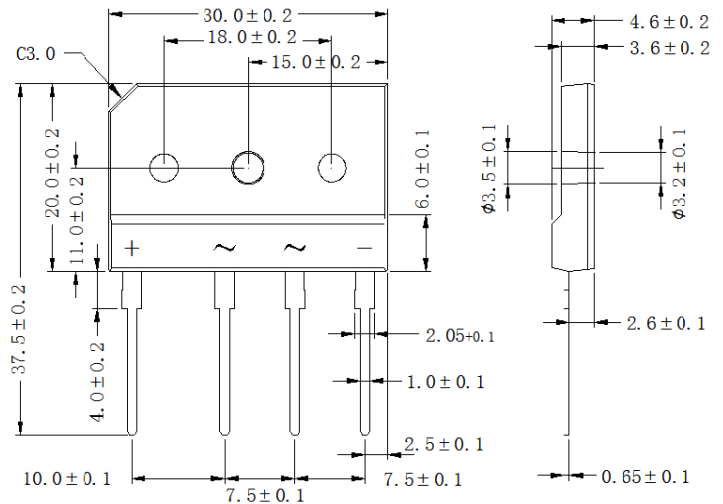
Rectifier Reverse Voltage 50 to 1000V

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%.

CHARACTERISTICS	SYMBOL	GBJ 25005	GBJ 2501	GBJ 2502	GBJ 2504	GBJ 2506	GBJ 2508	GBJ 2510	UNIT	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V _{RMS}	30	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current (with heatsink Note 2) @ T _c =100°C (without heatsink)	I _(AV)	25.0							3.5	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I _{FSM}	350								A
Maximum Forward Voltage at 12.5A DC	V _F	1.1								V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T _J =25°C @ T _J =125°C	I _R	10							500	μA
Typical Thermal Resistance (Note2)	R _{θJC}	1.0								°C/W
Operating Temperature Range	T _J	-55 to +150								°C
Storage Temperature Range	T _{STG}	-55 to +150								°C

NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 2. Device mounted on 300mm*300mm*1.6mm cu plate heatsink.

Rating and Characteristic Curves ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)
GBJ25005 thru GBJ2510

FIG.1-FORWARD CURRENT DERATING CURVE

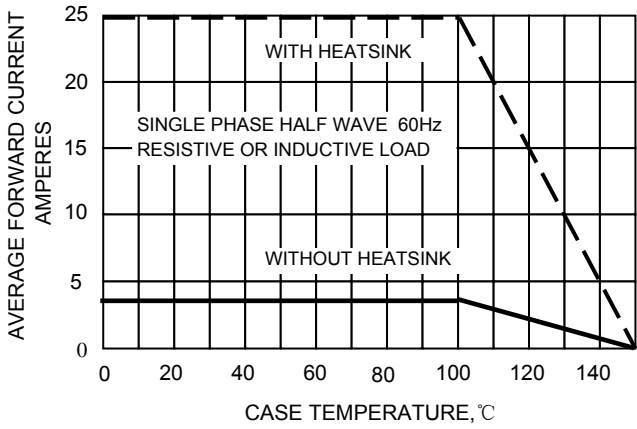


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

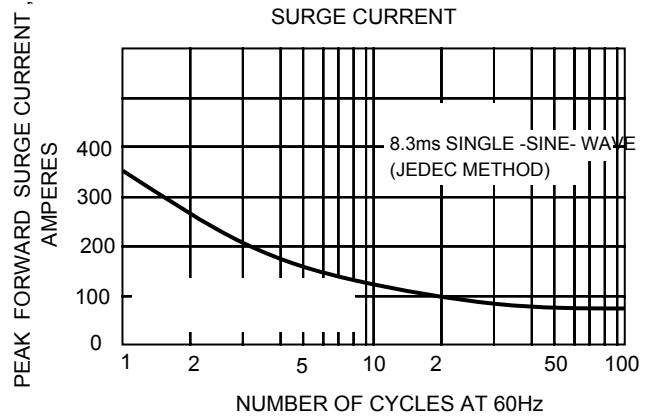


FIG.3-TYPICAL JUNCTION CAPACITANCE

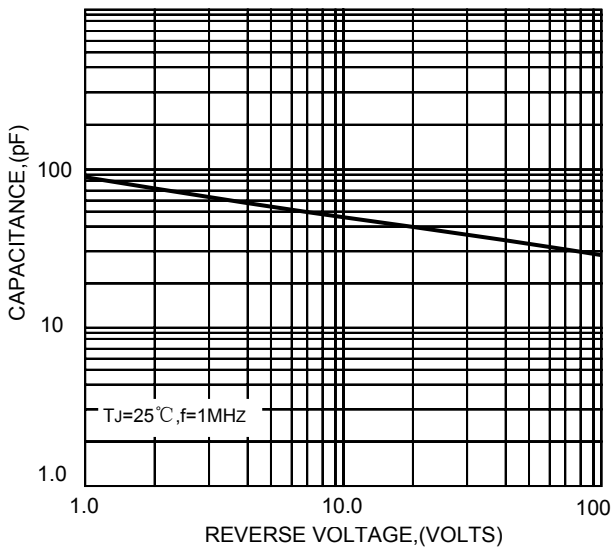


FIG.4-TYPICAL FORWARD CHARACTERISTICS

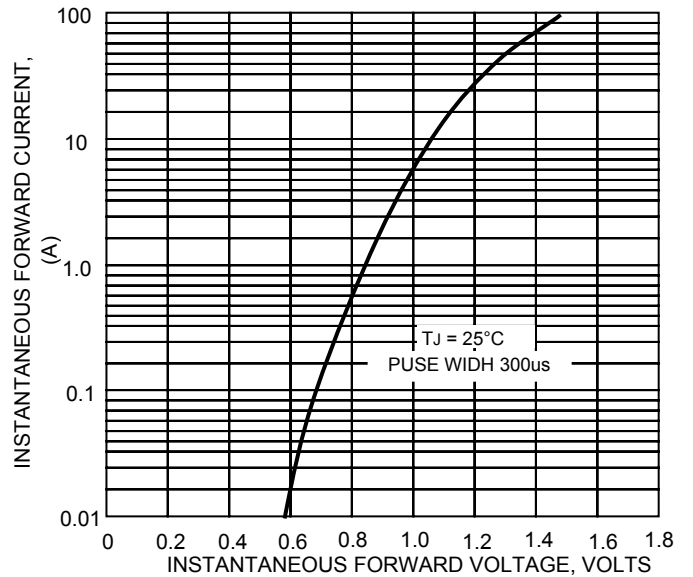


FIG.5-TYPICAL REVERSE

