



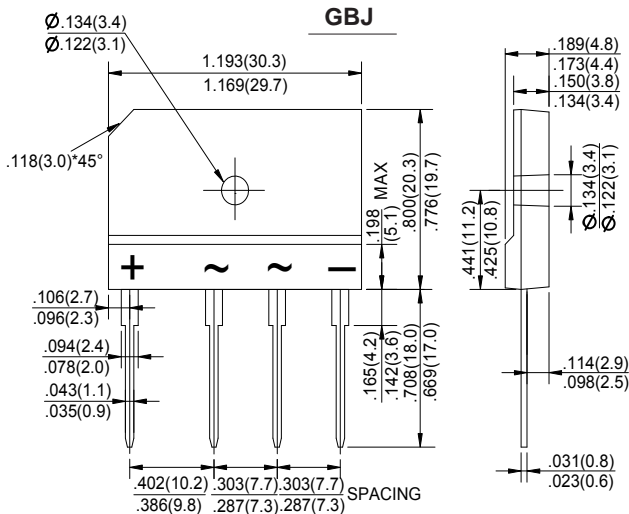
# GBJ25005 THRU GBJ2510

## SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 25.0 Amperes

### FEATURES

- ◆ Rating to 1000V PRV
- ◆ Ideal for printed circuit board
- ◆ Low forward voltage drop, high current capability
- ◆ Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- ◆ The plastic material has U/L flammability classification 94V-0



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

TWGMC Catalog Number	SYMBOLS	GBJ 25005	GBJ 2501	GBJ 2502	GBJ 2504	GBJ 2506	GBJ 2508	GBJ 2510	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	VOLTS
Maximum Average Forward (with heatsink Note 2) Rectified Current @ $T_C = 100^\circ C$ (without heatsink)	$I_{(AV)}$	25.0 4.2							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	350							Amps
Maximum instantaneous forward voltage drop per bridge element at 12.5A	$V_F$	1.0							Volts
Maximum DC reverse current $T_J = 25^\circ C$ at rated DC blocking voltage $T_J = 125^\circ C$	$I_R$	10 0.5							$\mu A$ mA
It Rating for Fusing ( $t < 8.3ms$ )	$I^2 t$	508							$A^2 s$
Typical Junction Capacitance (Note 1)	$C_J$	85							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	0.6							$^\circ C/W$
Operating junction temperature range	$T_J$	-55 to +150							$^\circ C$
storage temperature range	$T_{STG}$	-55 to +150							$^\circ C$

- NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2. Device mounted on 75mm\*75mm\*1.6mm Cu plate heatsink.  
3. The typical data above is for reference only(典型值仅供参考).

# RATINGS AND CHARACTERISTIC CURVES GBJ25005 THRU GBJ2510

FIG.1-FORWARD CURRENT DERATING CURVE

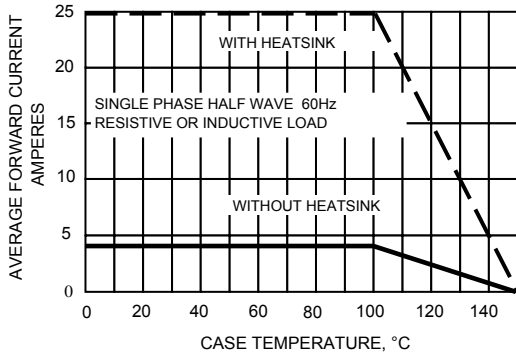


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

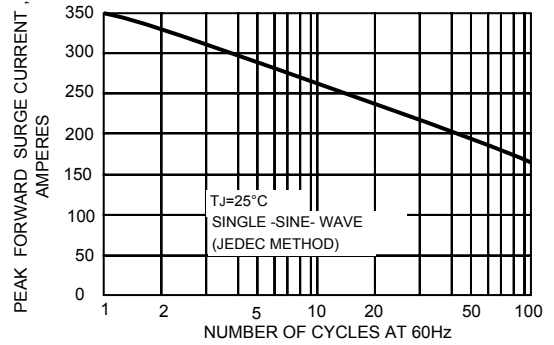


FIG.3-TYPICAL JUNCTION CAPACITANCE

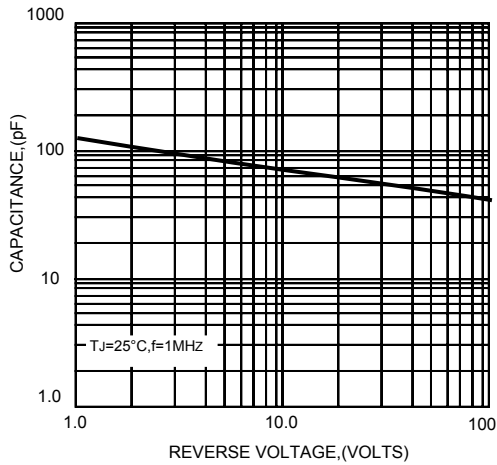


FIG.4-TYPICAL FORWARD CHARACTERISTICS

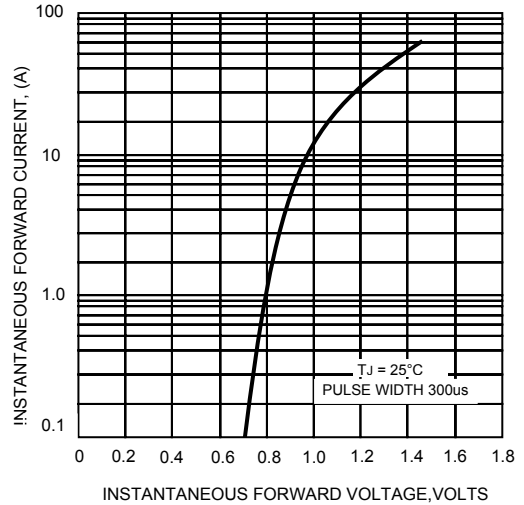
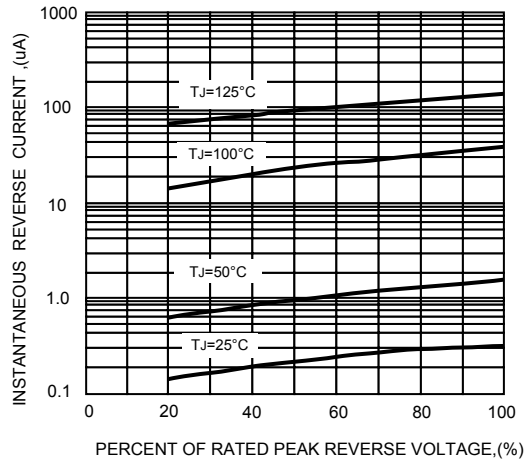


FIG.5-TYPICAL REVERSE CHARACTERISTICS



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!