



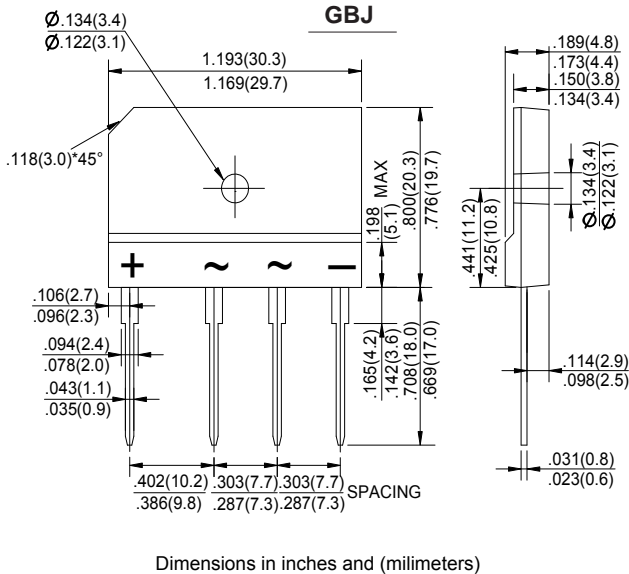
GBJ50005 THRU GBJ5010

SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 50.0 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%.

MDD Catalog Number	SYMBOLS	GBJ 50005	GBJ 5001	GBJ 5002	GBJ 5004	GBJ 5006	GBJ 5008	GBJ 5010	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 Rectified Current @ $T_C = 100^\circ C$ (with heatsink Note 2) (without heatsink)	$I_{(AV)}$	50.0							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 25A	V_F	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	$T_A = 25^\circ C$							μA
		$T_A = 125^\circ C$							mA
It Rating for Fusing ($t < 8.3ms$)	$I^2 t$	510							$A^2 s$
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 GBJ50005 THRU GBJ5010

FIG.1-FORWARD CURRENT DERATING CURVE

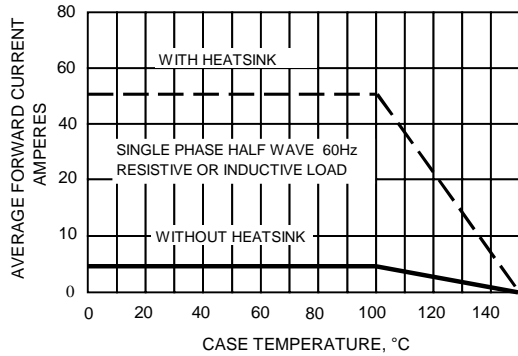


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

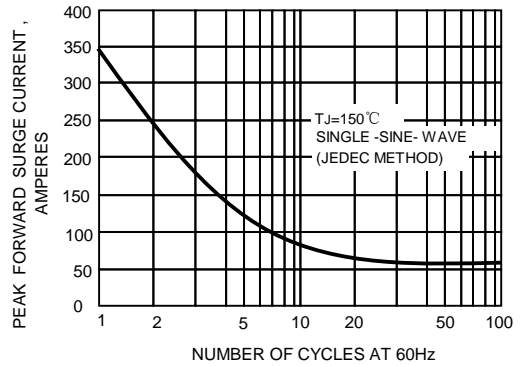


FIG.3-TYPICAL REVERSE CHARACTERISTICS

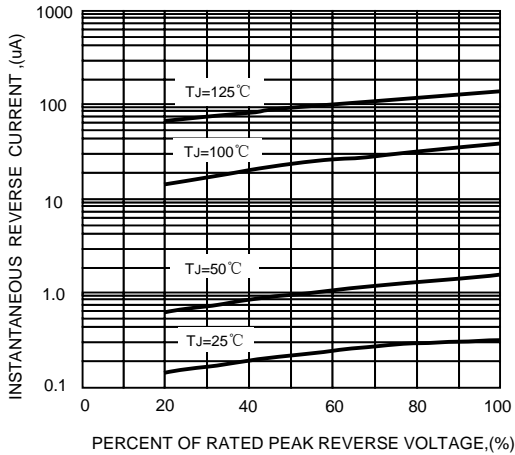
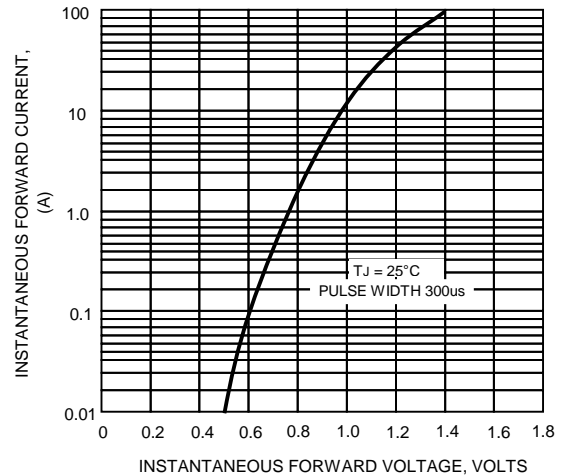


FIG.4-TYPICAL FORWARD CHARACTERISTICS



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

