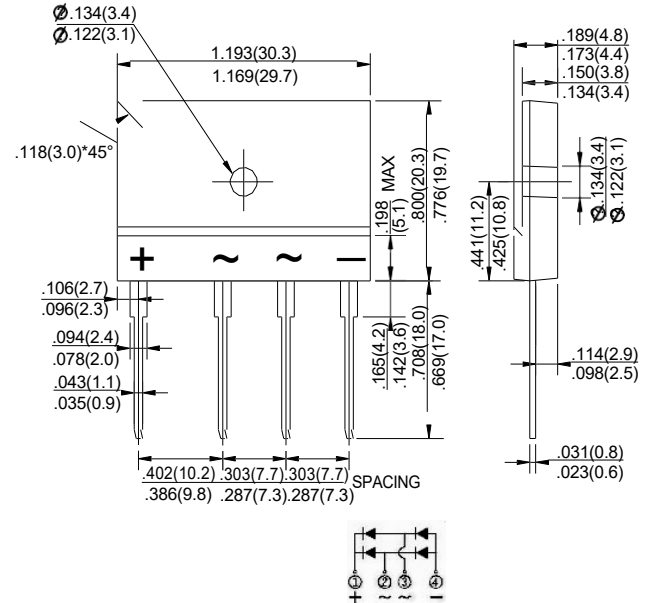


SILICON BRIDGE RECTIFIERS

Features

- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic technique
- ◆ Plastic material has U/L lammability classification 94V-0
- ◆ Low forward voltage drop,high current capability

GBJ



Dimensions in inches and (millimeters)

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%.

Parameter	SYMBOLS	GBJ6005	GBJ601	GBJ602	GBJ604	GBJ606	GBJ608	GBJ610	UNITS
Marking Code									
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward (with heatsink NOTE 2) Rectified current @ $T_c = 100^\circ\text{C}$ (without heatsink)	I_{AV}	6.0 3.3							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	175.0							A
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	127.0							A^2s
Maximum forward voltage at 3.0A DC	V_F	1.0							V
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	I_R	10							μA
		0.5							mA
Typical Junction Capacitance (Note 1)	C_J	55							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	1.8							$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +150							$^\circ\text{C}$
storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$

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.

Ratings And Characteristic Curves

FIG.1-FORWARD CURRENT DERATING CURVE

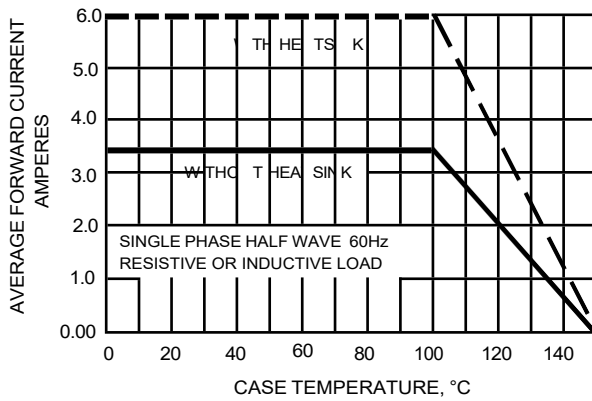


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

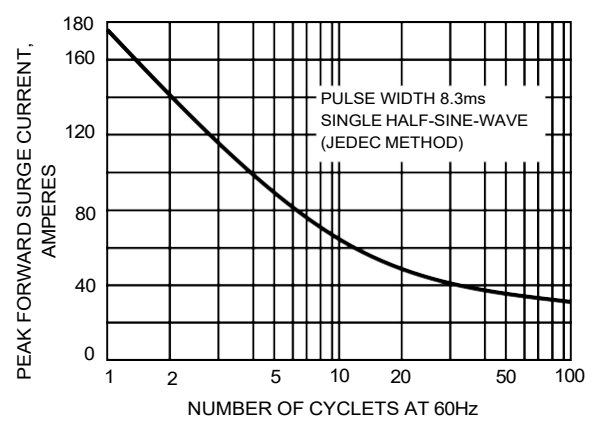


FIG.3-TYPICAL JUNCTION CAPACITANCE

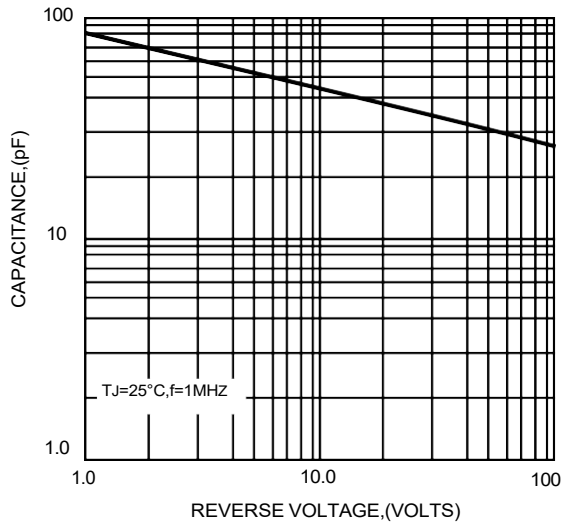


FIG.4-TYPICAL FORWARD CHARACTERISTICS

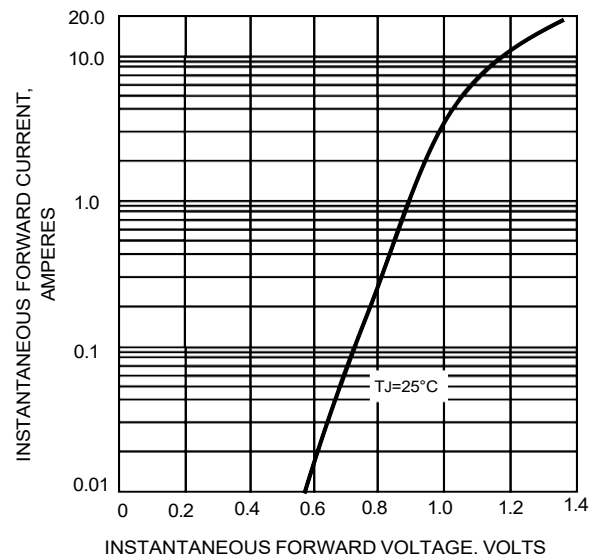
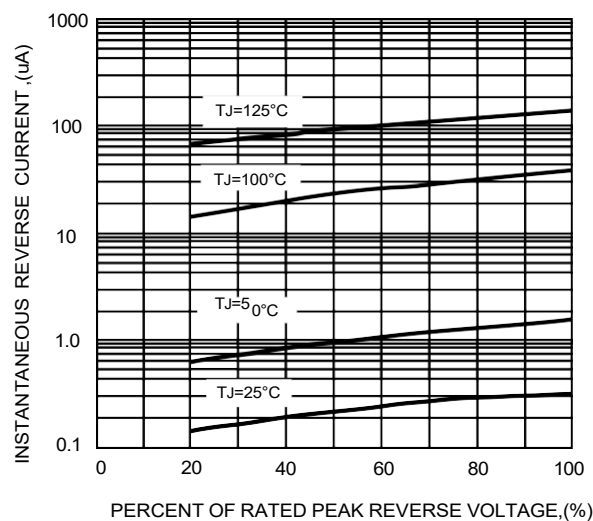


FIG.5-TYPICAL REVERSE CHARACTERISTICS



The curve above is for reference only.