

GBJ30005~GBJ3010

Single Phase 30.0Amp Glass passivated Bridge Rectifiers

GBJ

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Idea for printed circuit board
- ◆ Glass passivated junction chip
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed
260°C/10 seconds at terminals

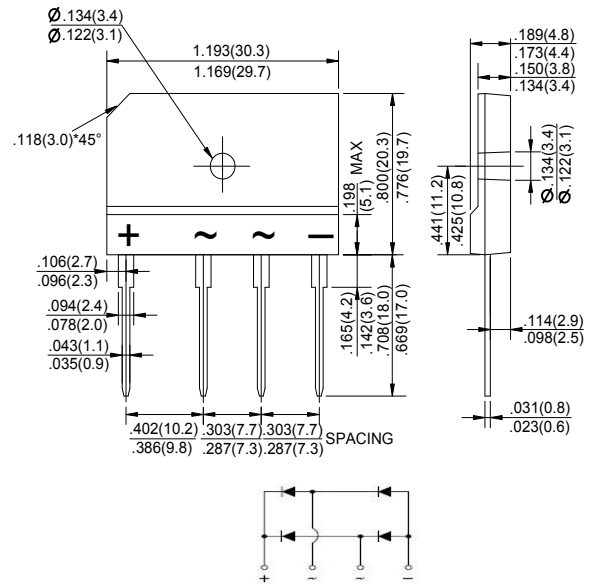
Mechanical Data

Case : Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750,Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any



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	GBJ 30005	GBJ 3001	GBJ 3002	GBJ 3004	GBJ 3006	GBJ 3008	GBJ 3010	UNITS
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 rectified current with heatsink	$I_{(AV)}$	30.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	350.0							A
Rating for fusing (t=8.3ms, Ta=25°C)	I_t^2	508							A ² _s
Maximum instantaneous forward voltage at 30.0A	V_F	1.10							V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I_R	2.0 200							uA
Typical junction capacitance (Note 1)	C_J	65.0							pF
Typical thermal resistance	R_{qJA}	23.0							°C/W
Operating junction and storage temperature range	T _J ,T _{STG}	-55 to +150							°C

Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

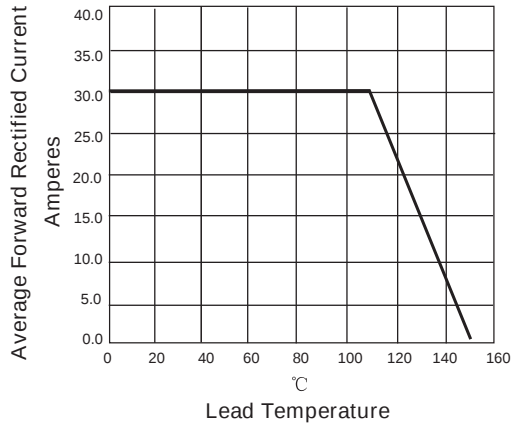


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

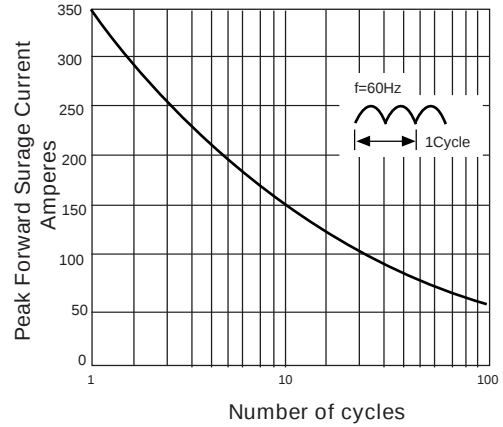


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

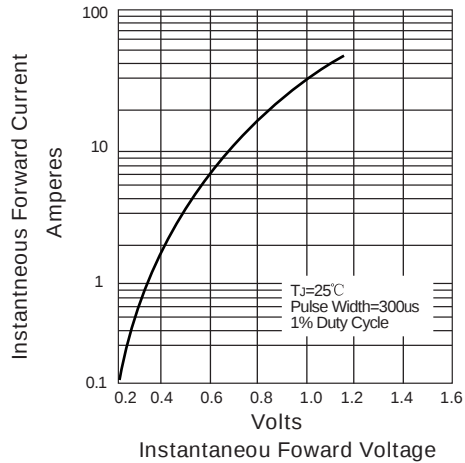
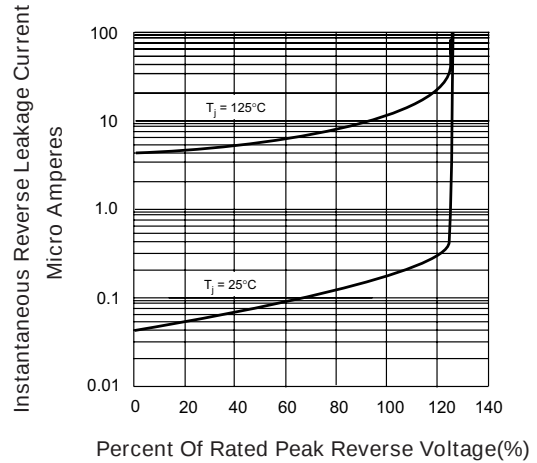
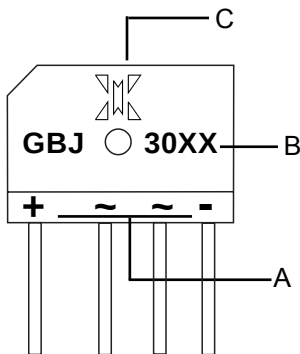


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

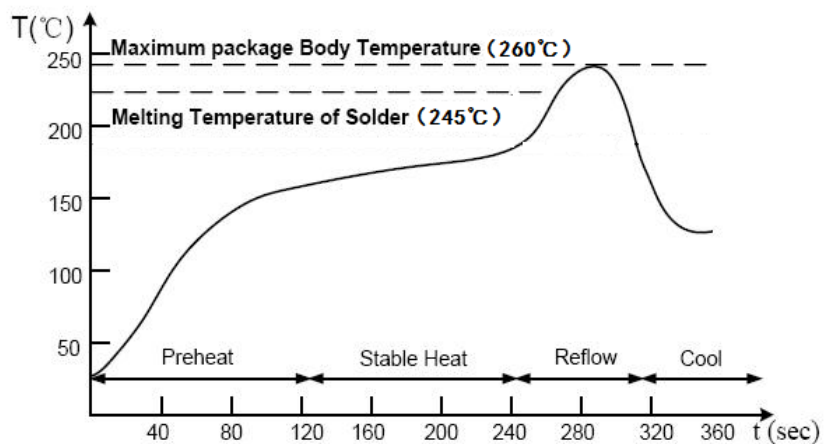


Marking



Symbol	Explanation
A	Polarity Symbol
B	Product Name,XX : 005.01.....10
C	Logo

Suggested Soldering Temperature Profile



Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 260°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.