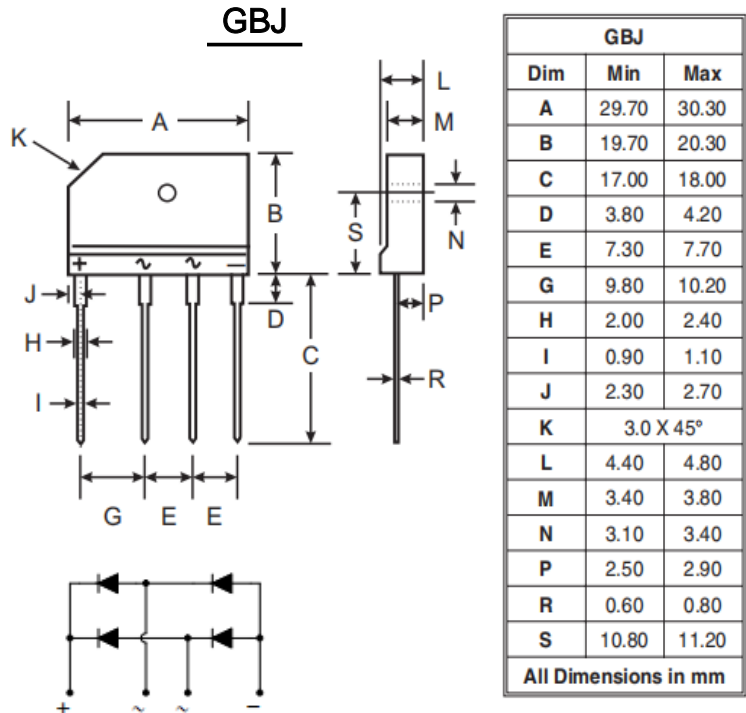


Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: Molded plastic, GBJ
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.
 Single Phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	GBJ 6005	GBJ 601	GBJ 602	GBJ 604	GBJ 606	GBJ 608	GBJ 610	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}								V
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	
DC Blocking Voltage	V_{DC}								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 2)@ $T_c=90^\circ C$	$I_F(AV)$	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A
I^2t Rating for Fusing ($t < 8.3ms$)	I^2t	93.375							A^2s
Forward Voltage per element @ $I_F=3A$ @ $I_F=6A$	V_{FM}	1.0 1.1							V
Peak Reverse Current @ $T_A=25^\circ C$ At Rated DC Blocking Voltage @ $T_A=125^\circ C$	I_R	5.0 500							μA
Typical Junction Capacitance per leg	C_J	45							pF
Between junction and ambient, Without heatsink	$R_{\theta JA}$	24							$^\circ C/W$
Between junction and case, With heatsink	$R_{\theta JC}$	1.8							
Operating and Storage Temperature Range	T_J, T_{STG}	-55to+150							$^\circ C$

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance from junction to case per element. Unit mounted on 75 x 75 x 1.6mm aluminum plate heat sink.

Fig. 1 Output Current Derating Curve

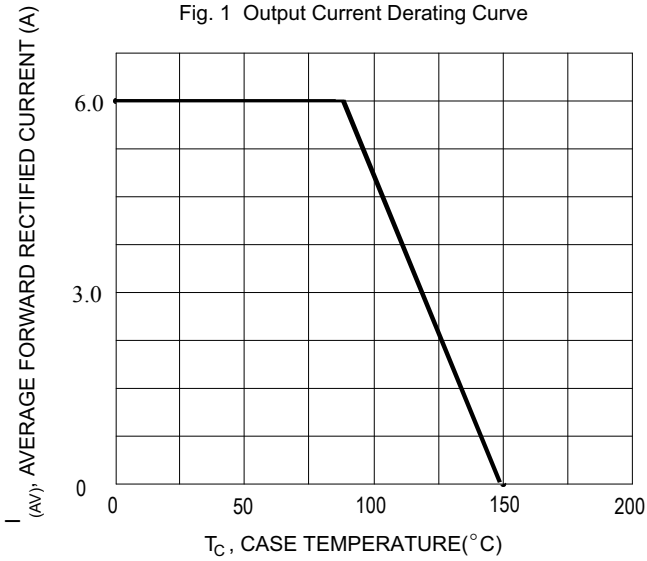


Fig. 2 Typical Forward Characteristics (per leg)

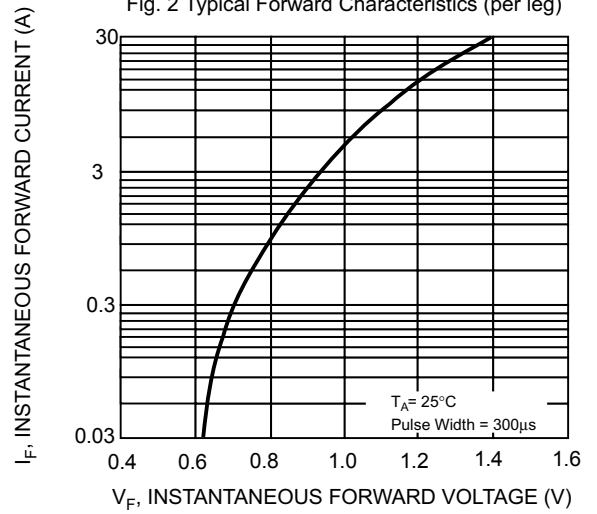


Fig. 3 Maximum Peak Forward Surge Current (per leg)

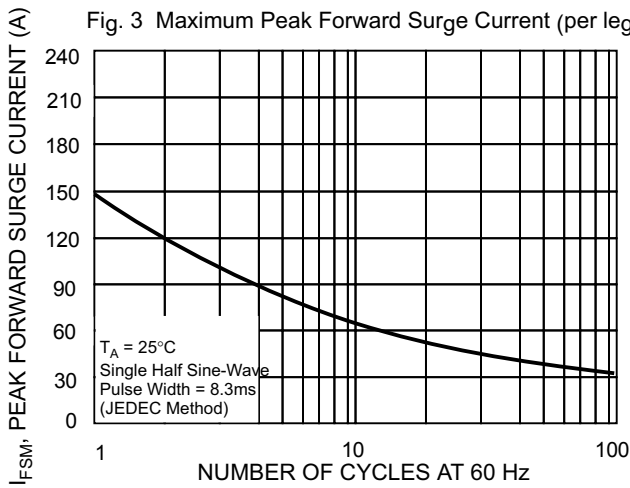


Fig. 4 Typical Junction Capacitance

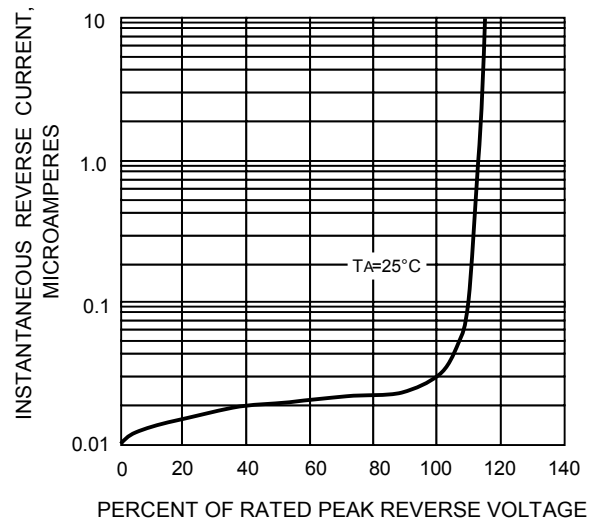


FIG.5 TYPICAL REVERSE CHARACTERISTICS

