



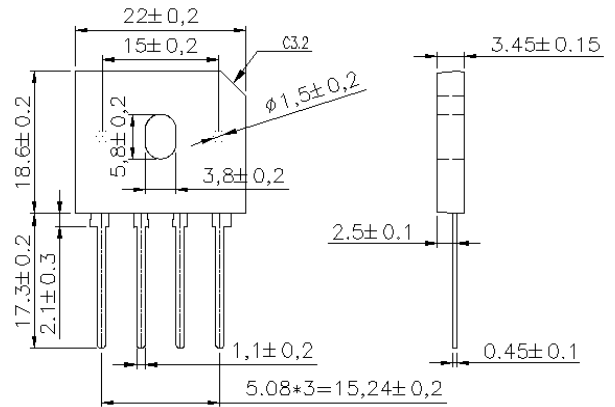
10A Single-Phase Silicon Bridge Rectifier

■ Features

- Ideal for printed circuit board mounting
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Built-in printed circuit board stand-offs
- High case dielectric strength
- High temperature soldering guaranteed 260°C/5 seconds at 5 lbs (2.3kg) tension

■ Mechanical Data

- Case: Reliable low cost construction utilizing molded plastic technique
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Mounting Position: Any



Dimensions in inches and (millimeters)

■ Maximum Ratings & Thermal Characteristics

Parameter	Symbol	GBU10005	GBU1001	GBU1002	GBU1004	GBU1006	GBU1008	GBU1010	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS bridge input 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 output current at $T_C=100^\circ\text{C}$ (with heatsink)	$I_F(AV)$	10.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200							A
Rating for fusing ($t < 8.3\text{ms}$)	I^2t	166							A^2sec
Operating junction and storage temperature range	T_J T_{STG}	-55 to + 150							$^\circ\text{C}$

Notes: Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz. For Capacitive load derate current by 20%.

■ Electrical Characteristics

Parameter	Symbol	GBU25005	GBU2501	GBU2502	GBU2504	GBU2506	GBU2508	GBU2510	Unit
Maximum instantaneous forward voltage drop per leg at 5A	V_F	1.1							V
Maximum DC reverse current at rated DC blocking voltage per element $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R	10 500							μA

Notes: Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz. For Capacitive load derate current by 20%. Thermal resistance from Junction to Ambient on P.C. board mounting.



■ Rating and Characteristic Curves (TA=25°C Unless otherwise noted)

Fig. 1 Derating Curve for Output Rectified Current

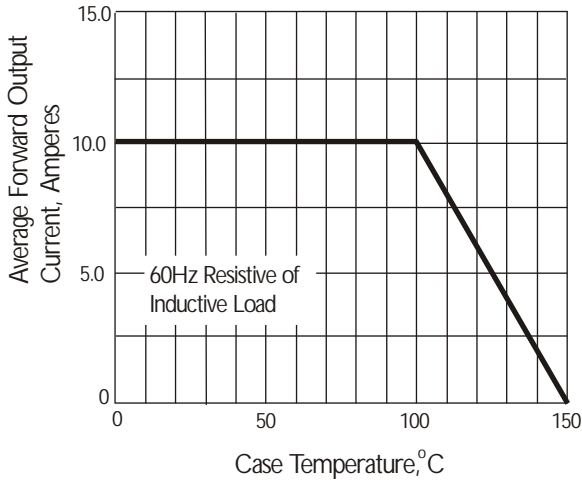


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

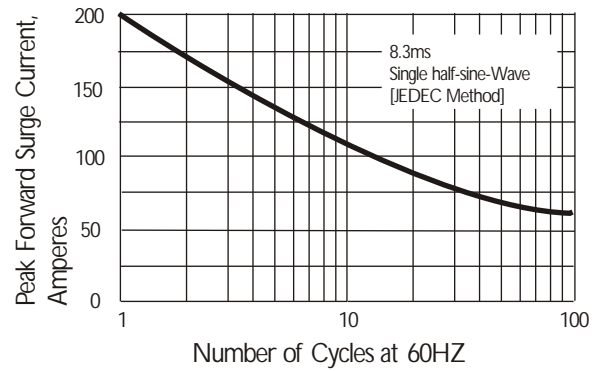


Fig. 3 Typical Instantaneous Forward Characteristics

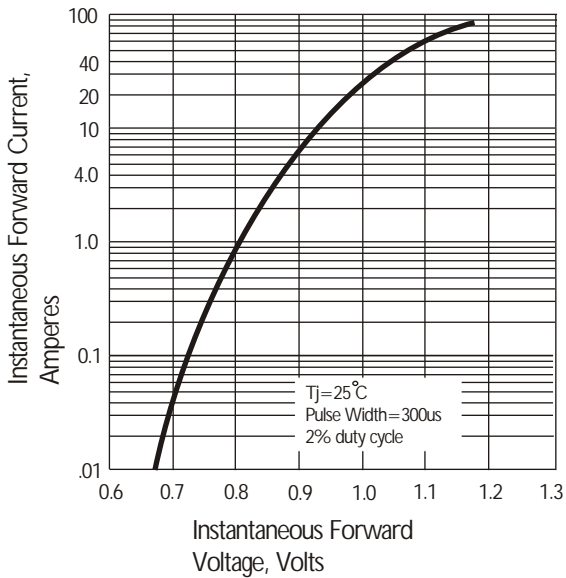


Fig. 4 Typical Reverse Characteristics

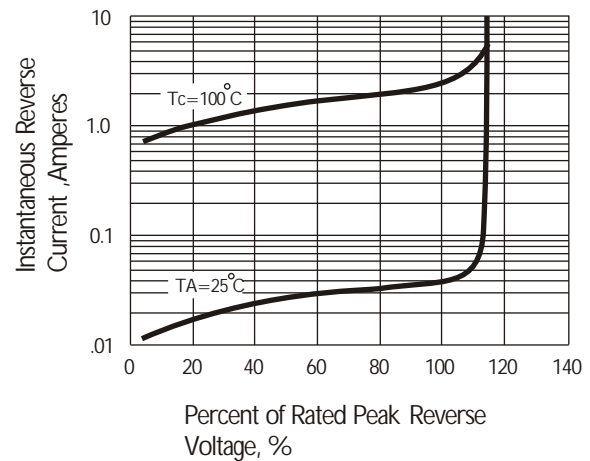


Fig. 5 Typical Junction Capacitance

