PECLERS®

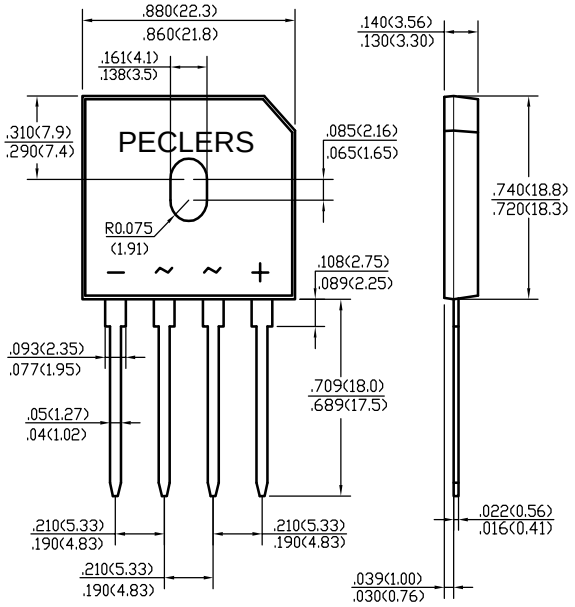
GBU6005 THRU GBU610

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE: **50 to 1000 VOLTS**

FORWARD CURRENT: **6.0 AMPERE**

GBU



Dimensions in inches and (millimeters)

FEATURES

- Glass passivated chip junction
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low forward voltage drop
- Low reverse leakage current
- High surge current capability

MECHANICAL DATA

Case: Molded plastic, GBU

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed

Mounting position: Any

Weight: 0.15ounce, 4.0gram

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60H_Z, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	*GBU6005*	*GBU601*	*GBU602*	*GBU604*	*GBU606*	*GBU608*	*GBU610*	Units
Maximum Recurrent 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 at T_C**=100℃ (Note 1),(Note 2)**	$I_{(AV)}$	6.0							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	175							**Amp**
Maximum Forward Voltage at 3.0A DC and 25℃	V_F	1.0							**Volts**
Maximum Reverse Current at T_A**=25℃**	I_R	5.0							**uAmp**
at Rated DC Blocking Voltage T_A**=125℃**		500							
Typical Junction Capacitance (Note 3)	C_J	210				94			**pF**
Typical Thermal Resistance (Note 1),(Note 2)	$R_{\theta JA}$	7.4							**℃/W**
Typical Thermal Resistance (Note 1),(Note 2)	$R_{\theta JC}$	2.2							**℃/W**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +150							**℃**

NOTES:

1- Units case mounted on 2.6 x 1.4 x 0.06" thick (6.5 x 3.5 x 0.15 cm) Al. Plate heatsink

2- Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screws

3- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 – Derating Curve Output Rectified Current

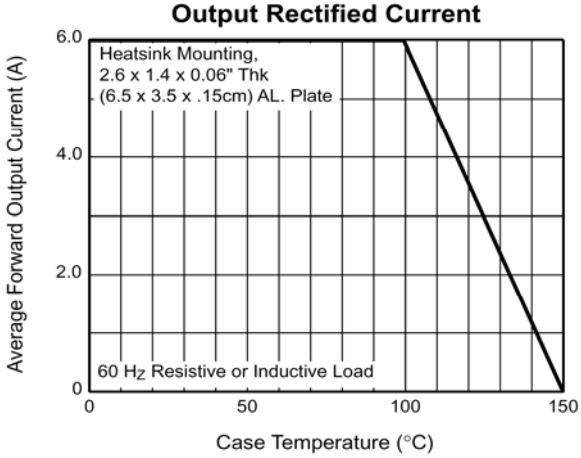


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

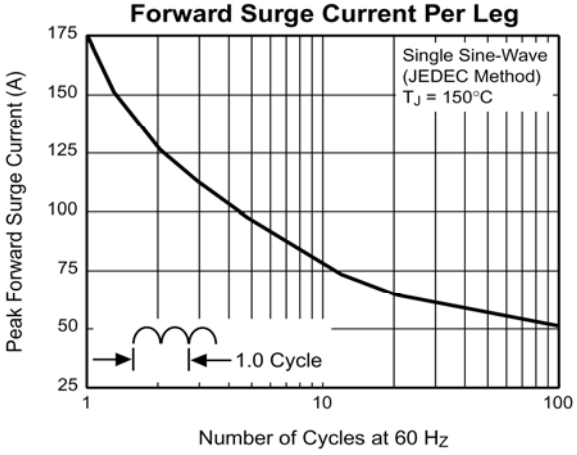


Fig. 3 – Typical Forward Characteristics Per Leg

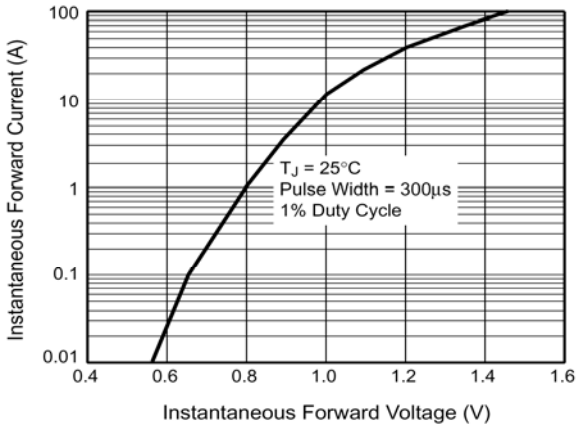


Fig. 4 – Typical Reverse Leakage Characteristics Per Leg

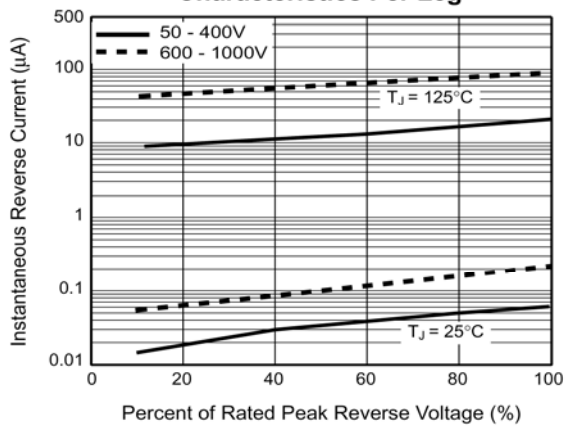


Fig. 5 – Typical Junction Capacitance Per Leg

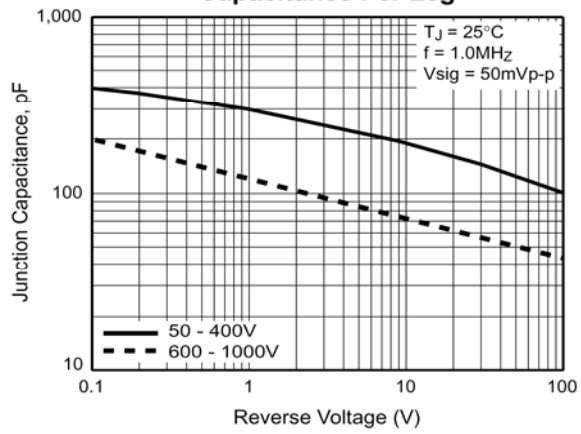


Fig. 6 – Typical Transient Thermal Impedance