PECLERS®

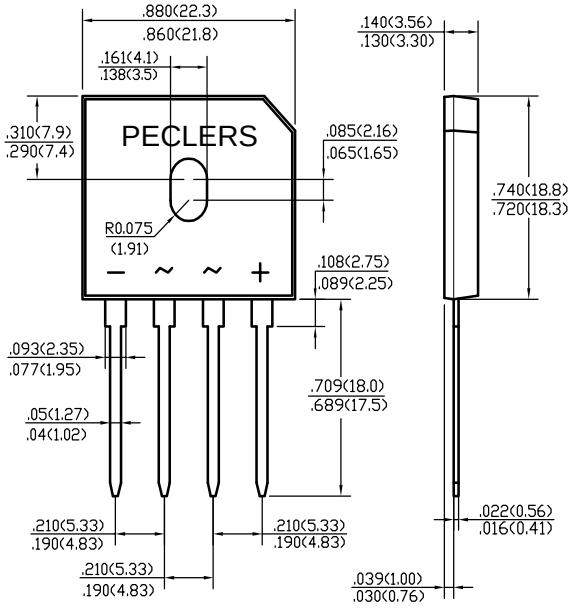
GBU10005 THRU GBU1010

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE: **50 to 1000 VOLTS**

FORWARD CURRENT: **10.0 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	*GBU10005*	*GBU1001*	*GBU1002*	*GBU1004*	*GBU1006*	*GBU1008*	*GBU1010*	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℃	$I_{(AV)}$	10.0							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200							**Amp**
Maximum Forward Voltage at 5.0A DC and 25 ℃	V_F	1.0							**Volts**
Maximum Reverse Current at T_A=25℃ / **at Rated DC Blocking Voltage T_A=125℃**	I_R	5.0 / 500							**uAmp**
Typical Junction Capacitance (Note 3)	C_J	255				125			**pF**
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	8.6							**℃/W**
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	3.1							**℃/W**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +150							**℃**

NOTES:

1- Units Mounted in free air, no heatsink, P.C.B at 0.375"(9.5mm) lead length with 0.5 x 0.5"(12 x 12mm)copper pads.

2- Units Mounted on a 2.6 x 1.4" x 0.06" thick (6.5 x 3.5 x 0.15cm) AL plate.

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

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

RATINGS AND CHARACTERISTIC CURVES

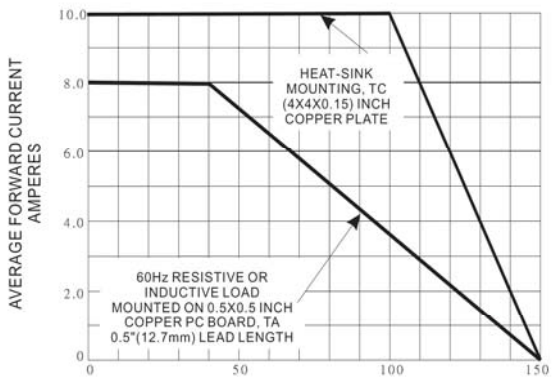


Fig.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

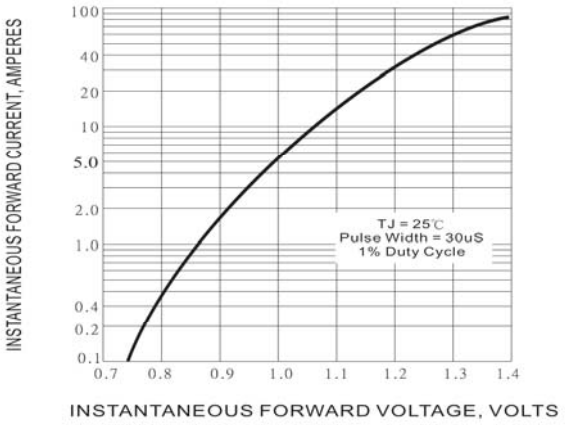


Fig.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

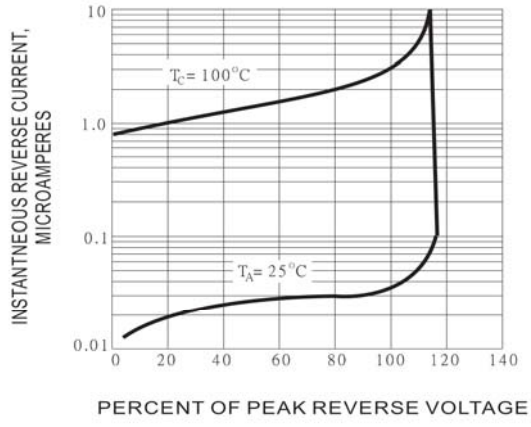


Fig.3 - TYPICAL REVERSE CHARACTERISTICS

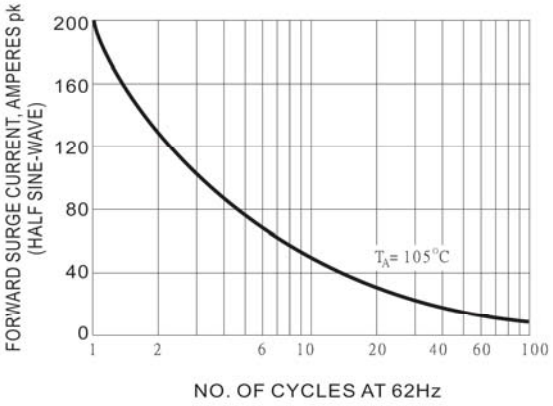


Fig.4 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

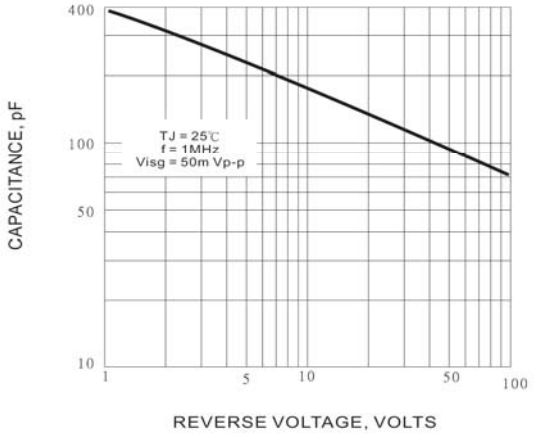


Fig.5 - TYPICAL JUNCTION CAPACITANCE PER ELEMENT