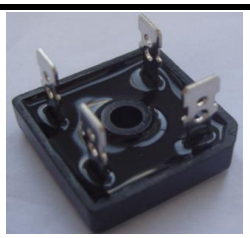
PECLERS®

GBPC50005 Thru GBPC5010

HIGH CURRENT SINGLE-PHASE SILICON BRIDGE RECTIFIER

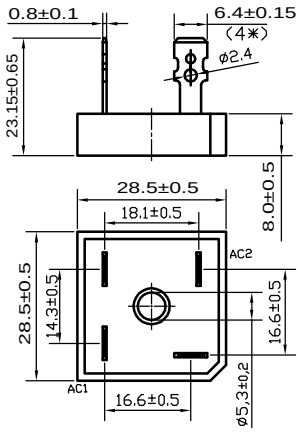
REVERSE VOLTAGE: **50 to 1000 VOLTS**
FORWARD CURRENT: **50 AMPERE**



GBPC...A

Features

- UL Recognized File # E-96005
- Glass passivated junction
- The plastic material used carries Underwriters Laboratory Flammability Recognition 94V-0
- Integrally molded heatsink provide very low thermal resistance for maximum heat dissipation
- Universal 4-way terminals; snap-on, wrap-around, solder or P.C. board mounting
- Surge overload ratings 400 amperes
- Terminals solderable per MIL-STD-202, Method 208
- Typical I_R less than 0.2 uA
- High temperature soldering guaranteed: 260℃/ 10 seconds / .375", (9.5mm) lead lengths
- Isolated voltage from case to lead over 2500 volts



Dimensions in millimeters

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	*005*	*01*	*02*	*04*	*06*	*08*	*10*	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 TC=55℃	$I_{(AV)}$	50							**Amp**
Peak Forward Surge Current,8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	500							**Amp**
Maximum Forward Voltage at 25A DC and 25℃	V_F	1.1							**Volts**
Maximum Reverse Current at T_A=25℃ **at Rated DC Blocking Voltage T_A=125℃**	I_R	10.0 1000							**uAmp**
Typical Junction Capacitance (Note 1)	C_J	300							**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2							**℃/W**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +150							**℃**

NOTES:

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

2- Thermal resistance from junction to case per leg

RATINGS AND CHARACTERISTIC CURVES

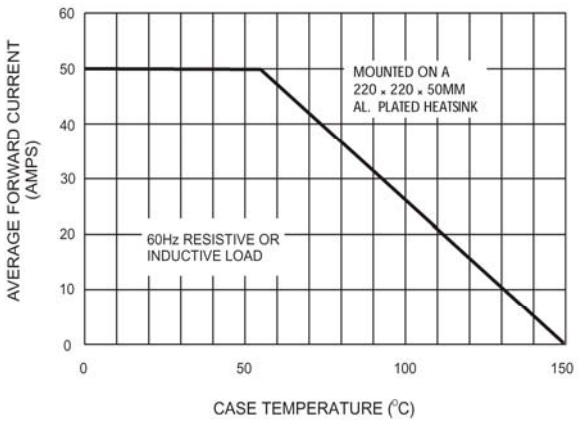


Figure 1. Forward Current Derating Curve

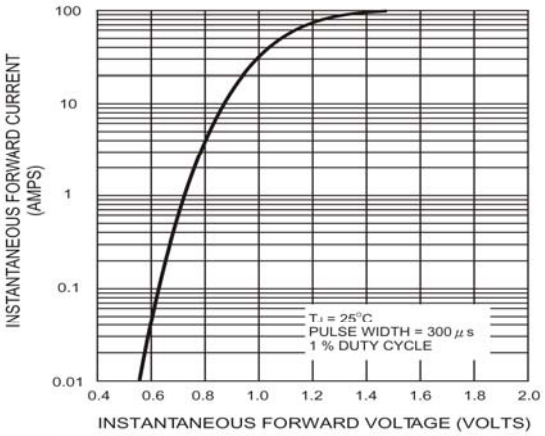


Figure 2. Typical Instantaneous Forward Characteristics Per Brdige Element

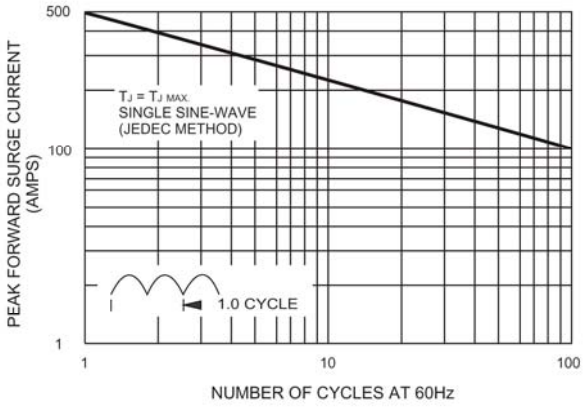


Figure 3. Maximum Non-repetitive Peak Forward Surge Current Per Bridge Element

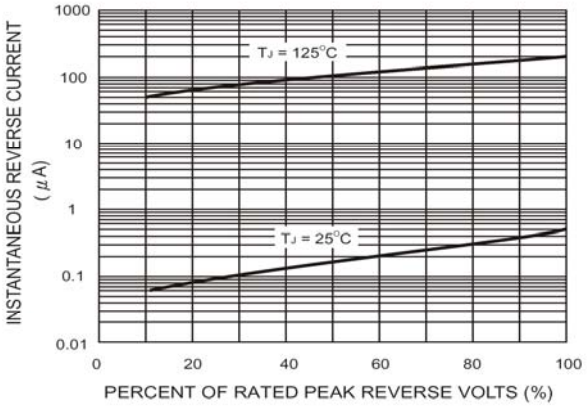


Figure 4. Typical Reverse Leakage Characteristics Per Bridge Element

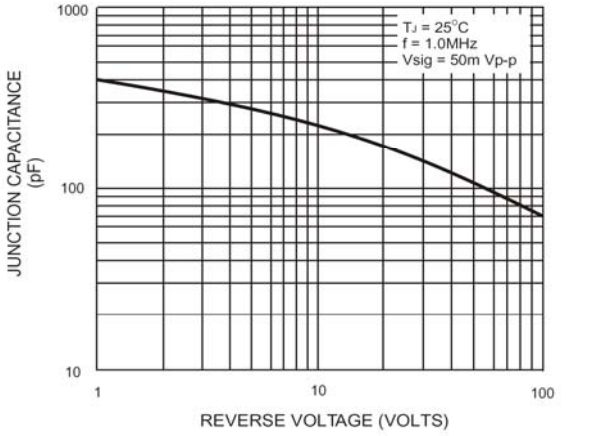


Figure 5. Typical Junction Capacitance Per Bridge Element

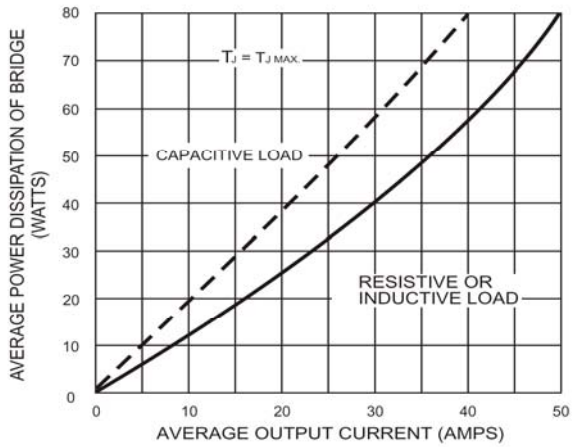


Figure 6. Maximum Power Dissipation