



GBPC 40, 50 SERIES

High Current 40, 50 AMPS. Single Phase Glass Passivated Bridge Rectifiers

Features

- ◇ UL Recognized File # E-326243
- ◇ 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
- ◇ Typical I_R less than 0.2 uA
- ◇ High temperature soldering guaranteed: 260 °C / 10 seconds / .375", (9.5mm) lead lengths
- ◇ Isolated voltage from case to lead over 2500 volts

Mechanical Data

- ◇ Case: Molded plastic body.
- ◇ Terminals: Pure tin plated, Lead free. leads solderable per MIL-STD-202, Method 208 .
- ◇ Weight: 17.37 grams
- ◇ Mounting position: Any
- ◇ Mounting Torque: 20 inches-lbs. max.

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

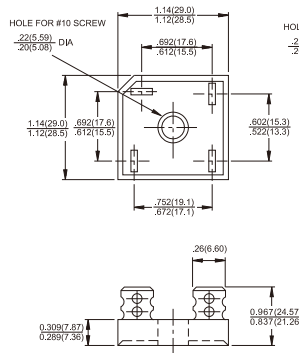
Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

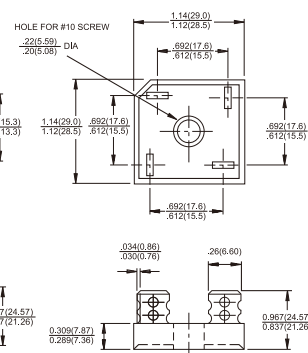
Type Number	Symbol	-005	-01	-02	-04	-06	-08	-10	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T _c = 55 °C GBPC40 GBPC50	I _{F(AV)}	40.0 50.0						A	
Peak Forward Surge Current, Single Sine-wave Superimposed on Rated Load GBPC40 (JEDEC method) GBPC50	I _{FSM}	400 400						A	
Maximum Instantaneous Forward Voltage Drop Per Element at Specified Current GBPC40 @20A GBPC50 @25A	V _F	1.1						V	
Maximum DC Reverse Current at Rated DC Blocking Voltage Per Element (Note 1)	I _R	10						uA	
Typical Thermal Resistance	R _{θJC}	1.5						°C/W	
Operating and Storage Temperature Range	T _J ,T _{STG}	-50 to +150						°C	

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
2. Suffix "M" - Terminal Location Face to Face.

GBPC40



GBPC40 -M



Dimensions in inches and (millimeters)

RATINGS AND CHARACTERISTIC CURVES (GBPC40005 THRU GBPC4010)
GBPC50005 THRU GBPC5010

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

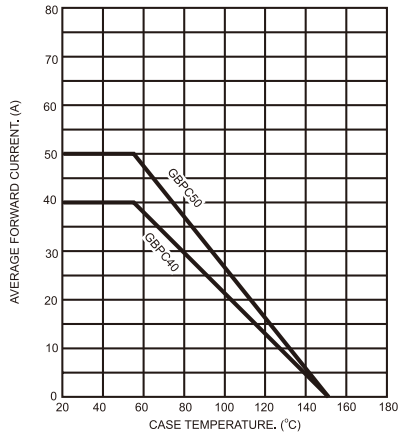


FIG.2- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

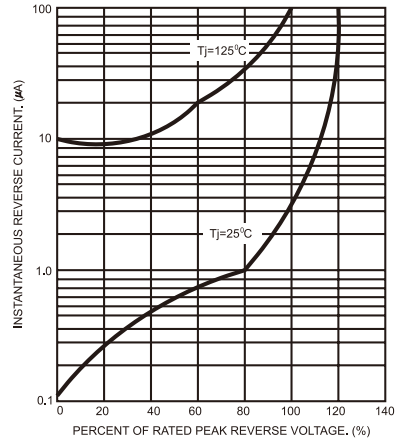


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

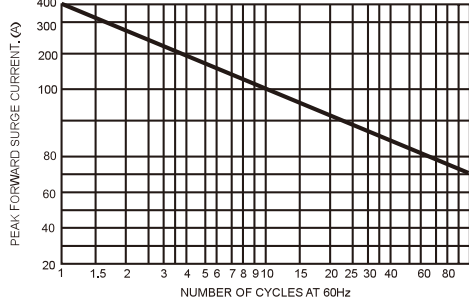


FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

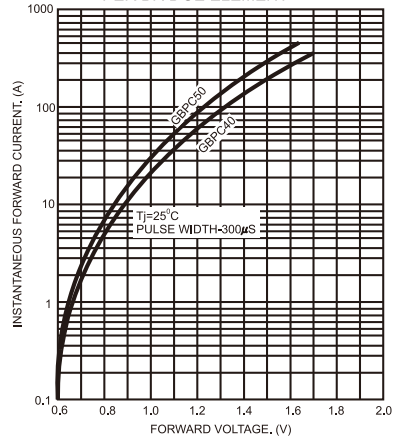


FIG.5- TYPICAL JUNCTION CAPACITANCE

