

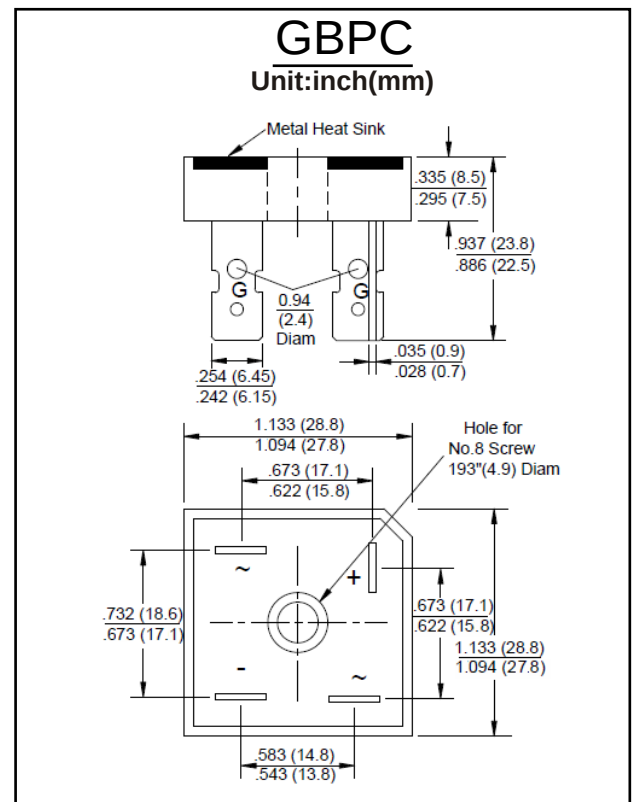
FEATURES

- Rating to 1000V PRV
- High efficiency
- Glass passivated chip junction
- Electrically isolated metal case for maximum heat dissipation
- The plastic material has UL flammability classification 94V-0

MECHANICAL DATA

- Case : Molded plastic with Heatsink internally mounted in the bridge encapsulation
- Polarity : As marked on Body

Package outline



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	GBPC 50005	GBPC 5001	GBPC 5002	GBPC 5004	GBPC 5006	GBPC 5008	GBPC 5010	UNIT
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 @ $T_c = 50^\circ\text{C}$ (with heatsink)	$I_{(AV)}$	50.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)	I_{FSM}	400							A
Maximum forward Voltage at 25A DC	V_F	1.0							V
Maximum DC Reverse Current @ $T_J = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_J = 125^\circ\text{C}$	I_R	5.0 500							μA
$I^2 t$ Rating for fusing ($t < 8.3\text{ms}$), (Note 1)	$I^2 t$	664							A^2S
Typical Junction Capacitance per element (Note 2)	C_J	150							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$	1.4							$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ\text{C}$

NOTES : 1.Measured at non-repetitive, for greater than 1ms and less than 8.3ms
 2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3.Device mounted on 300mm x 300mm x 1.6mm Cu Plate Heatsink.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

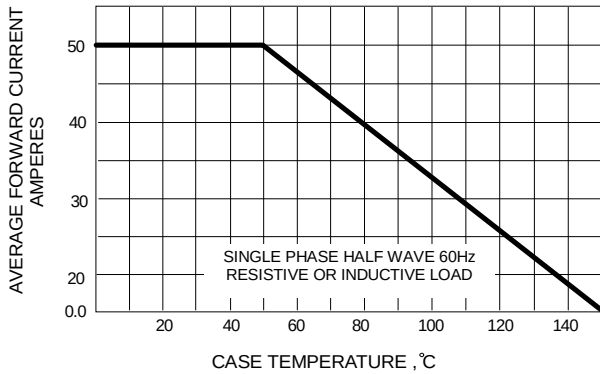


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

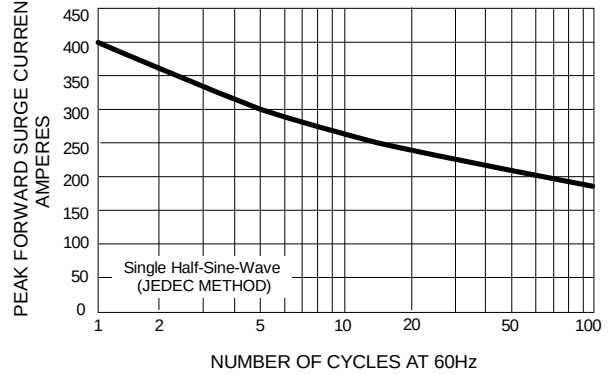


FIG.3 - TYPICAL JUNCTION CAPACITANCE

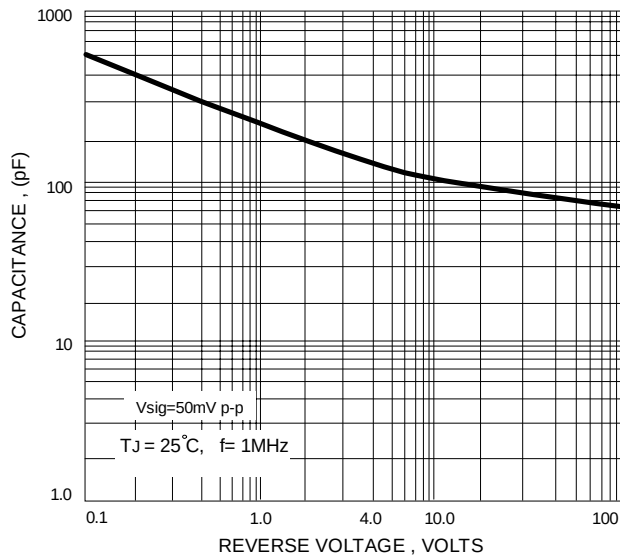


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

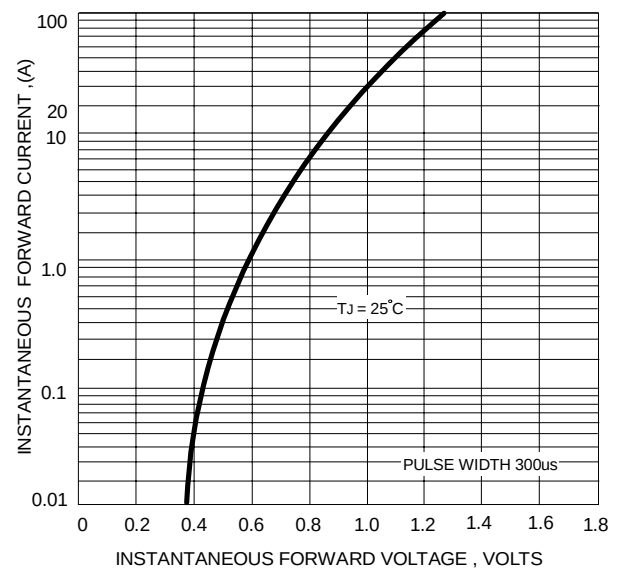


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

