

GLASS PASSIVATED BRIDGE RECTIFIERS

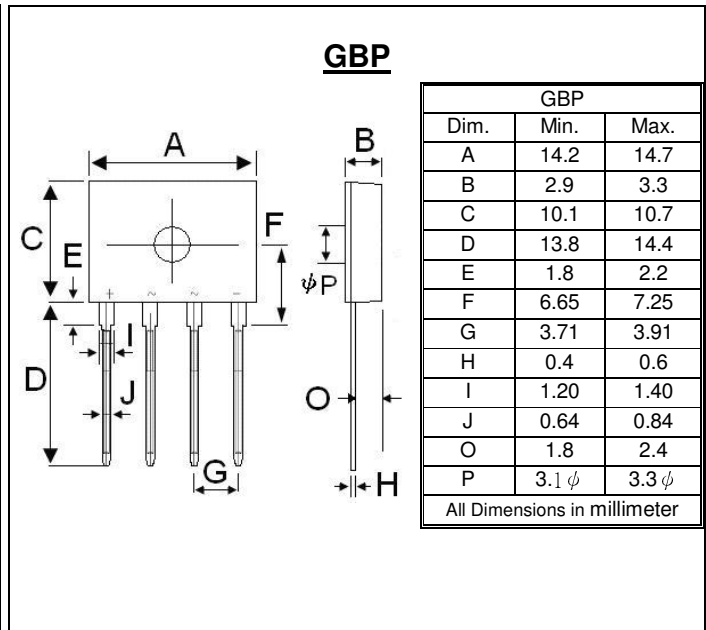
**REVERSE VOLTAGE – 600 to 1000 Volts
FORWARD CURRENT – 4.0 Ampere**

FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94-0
- UL recognized file#E95060

MECHANICAL DATA

- Case Material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Polarity indicator: As marked on body
- Weight: 1.33 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	GBP406	GBP408	GBP410	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	600	800	1000	V
Maximum Average Forward Rectified Current with Heat-sink @TC=90°C without Heat-sink @TA = 25 °C	$I_{(AV)}$		4.0 2.1		A
Peak Forward Surge Current 8.3ms single half sine-wave @ T _J = 25 °C @ T _J = 125°C	I_{FSM}		135 120		A
Peak Forward Surge Current 1.0ms single half sine-wave @ T _J = 25 °C @ T _J = 125°C	I_{FSM}		330 300		A
Maximum Forward Voltage at 2.0A DC	V_F		1.0		V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T _J = 25°C @ T _J = 125°C	I_R		5 500		μA
$I^2 t$ Rating for fusing (3ms ≤ t ≤ 8.3)	$I^2 t$		60		A ² S
Typical Junction Capacitance (Note 1)	C_J		40		pF
Typical Thermal Capacitance (Note 2)	$R_{\theta JC}$		7.5		°C/W
Operating and Storage Temperature Range	T _J , T _{STG}		-55 to +150		°C

Note :

- (1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- (2) Device mounted on 50mm x 50mm x 2.0mm Cu Plate Heatsink

REV. 9, Mar-2016, KBDG07

RATING AND CHARACTERISTIC CURVES
GBP406 thru GBP410



FIG. 1- FORWARD CURRENT DERATING CURVE

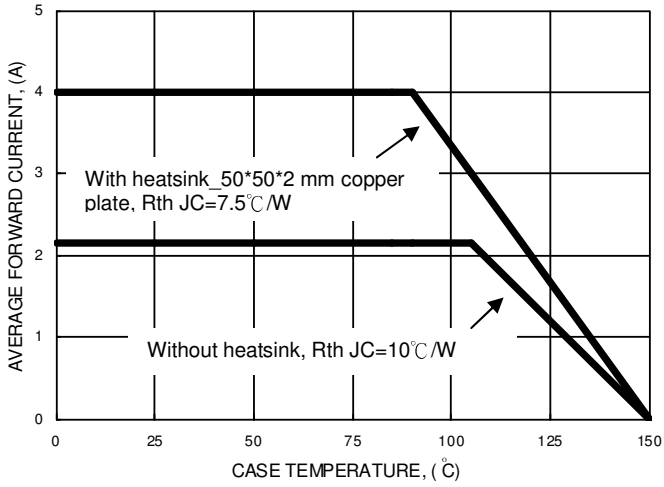


FIG. 2- MAXIMUM NON-REPETITIVE SURGE CURRENT

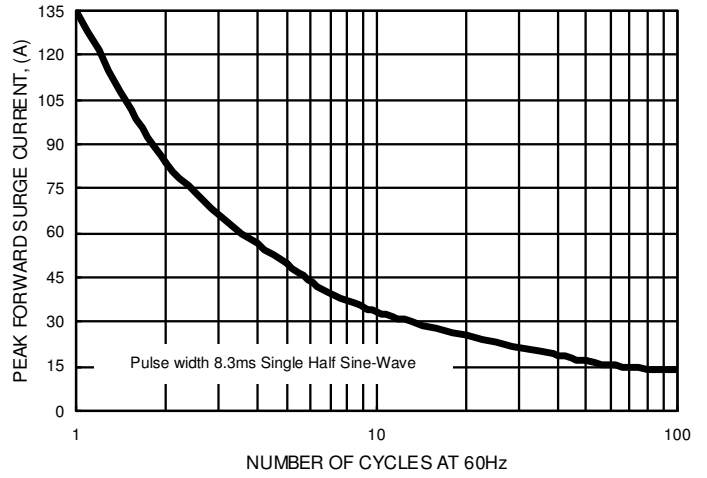


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

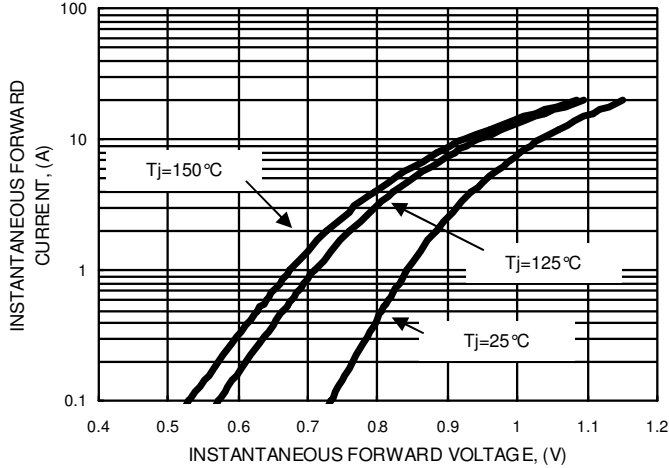


FIG. 4- TYPICAL JUNCTION CAPACITANCE

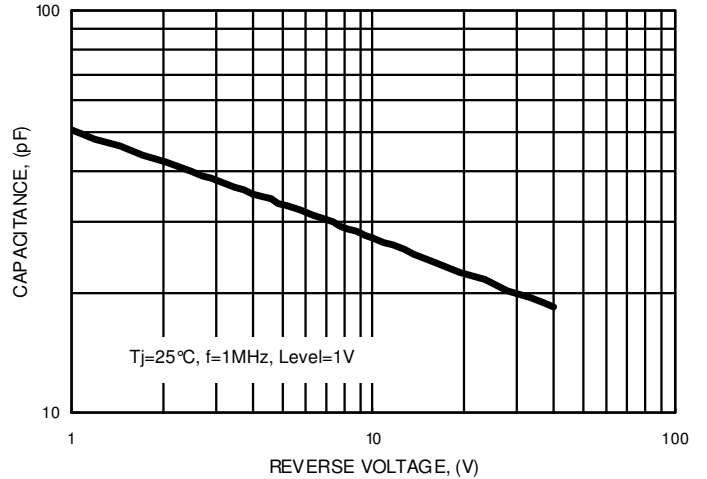


FIG. 5- TYPICAL REVERSE CHARACTERISTICS

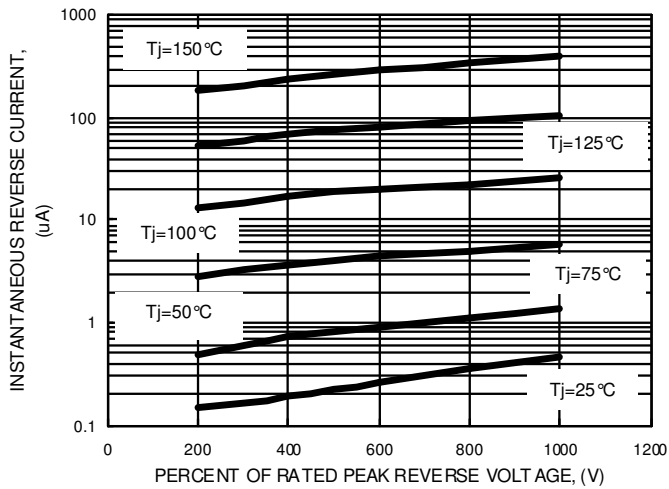


FIG. 6_ NON-REPETITIVE SURGE CURRENT

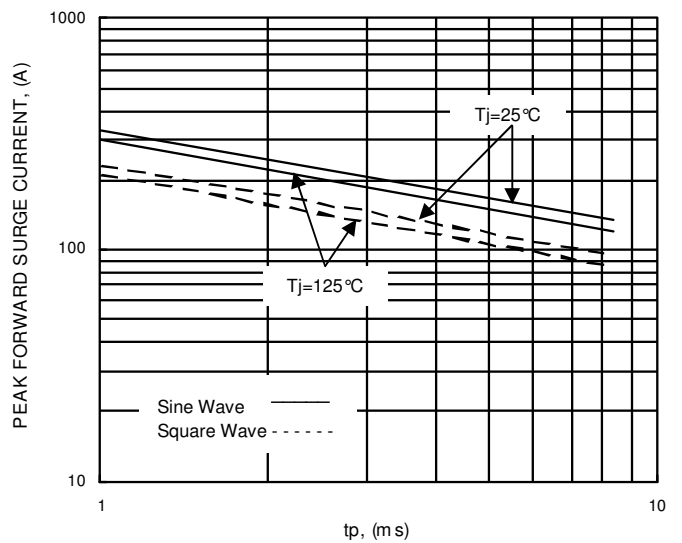
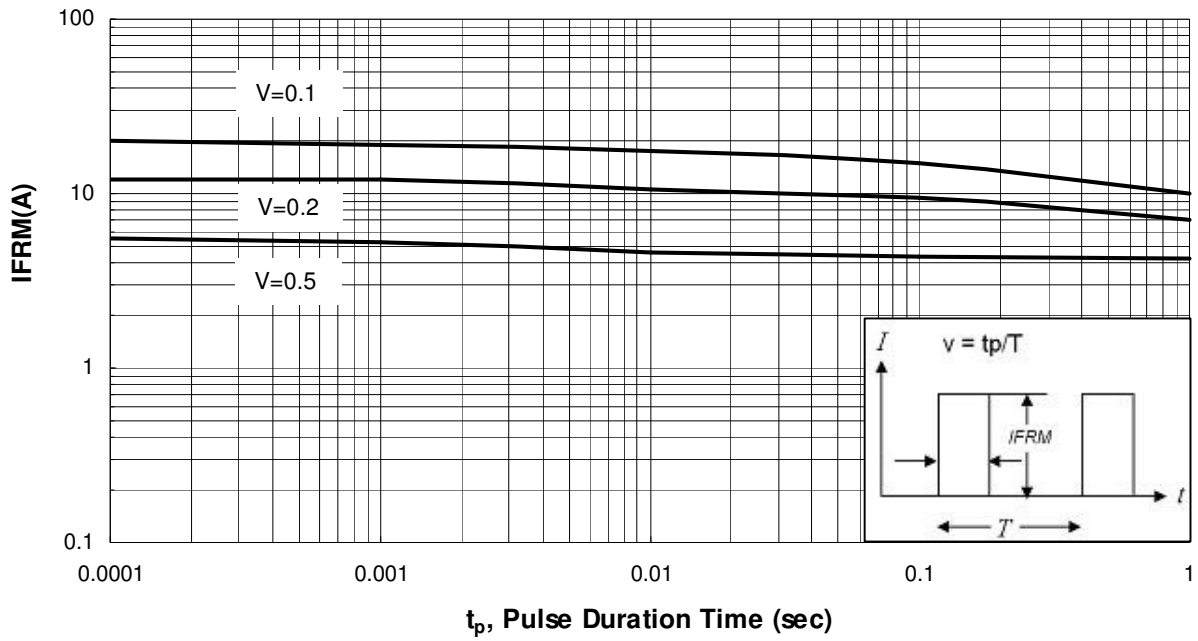


Fig.7 - Admissible Repetitive Peak Forward Current vs. Pulse Duration



Important Notice and Disclaimer

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.