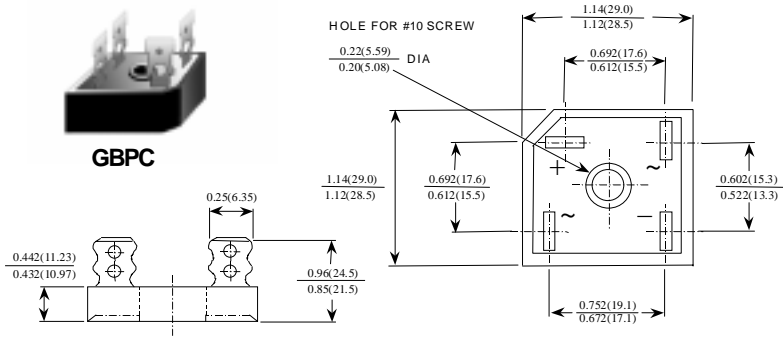


## GBPC 12, 15, 25, 35 SERIES

### Features

- Integrally molded heatsink provided very low thermal resistance for maximum heat dissipation.
- Surge overload ratings from 300 amperes to 400 amperes.
- Isolated voltage from case to lead over 2500 volts.

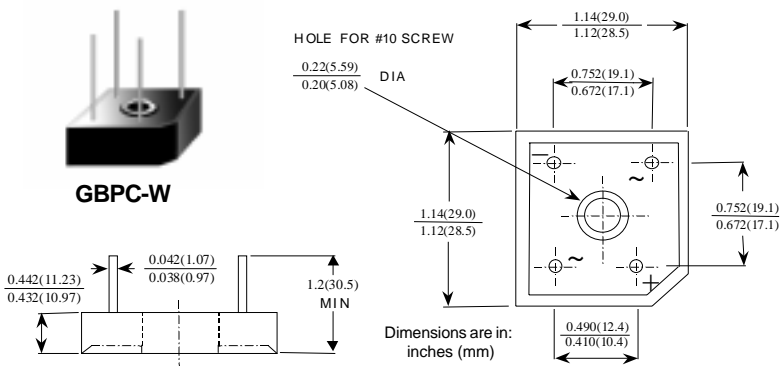


### Suffix "W"

Wire Lead Structure

### Suffix "M"

Terminal Location  
Face to Face



## 12, 15, 25, 35 Ampere Glass Passivated Bridge Rectifiers

### Absolute Maximum Ratings\*

$T_A = 25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Value	Units
$I_o$	Average Rectified Current @ $T_A = 55^\circ\text{C}$	<b>GBPC12</b> 12 <b>GBPC15</b> 15 <b>GBPC25</b> 25 <b>GBPC35</b> 35	A
$i_{r(\text{surge})}$	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	<b>GBPC12, 15, 25</b> 300 <b>GBPC35</b> 400	A
$P_D$	Total Device Dissipation Derate above $25^\circ\text{C}$	83.3 666	W mW/°C
$R_{\theta JL}$	Thermal Resistance, Junction to Lead	1.5	°C/W
$T_{stg}$	Storage Temperature Range	-55 to +150	°C
$T_J$	Operating Junction Temperature	-55 to +150	°C

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

# Glass Passivated Bridge Rectifiers

(continued)

GBPC 12, 15, 25, 35 SERIES

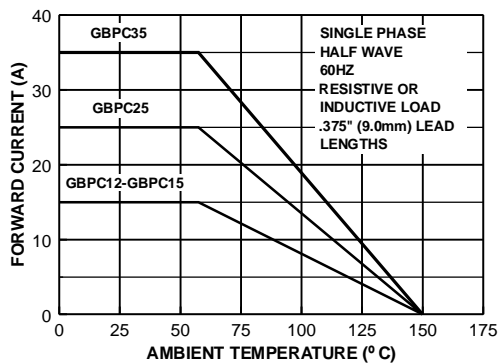
## Electrical Characteristics

$T_A = 25^\circ\text{C}$  unless otherwise noted

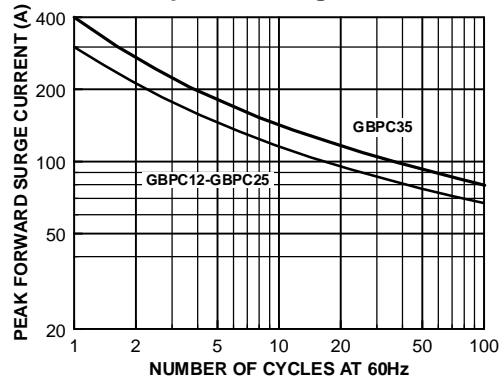
Parameter	Device							Units
	005	01	02	04	06	08	10	
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated $V_R$ )	50	100	200	400	600	800	1000	V
Maximum Reverse Leakage, total bridge @ rated $V_R$ $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	5.0 500							$\mu\text{A}$ $\mu\text{A}$
Maximum Forward Voltage Drop, per bridge @ 6.0 A @ 7.5 A @ 12.5 A @ 17.5 A	GBPC12 GBPC15 GBPC25 GBPC35 1.1							V
$I^2t$ rating for fusing $t < 8.3$ ms	GBPC12,15,25 GBPC35 375 660							$\text{A}^2\text{Sec}$ $\text{A}^2\text{Sec}$
Typical Junction Capacitance, per leg $V_R = 4.0\text{V}$ , $f = 1.0$ MHz	GBPC12,15,25 GBPC35 180 200							pF pF

## Typical Characteristics

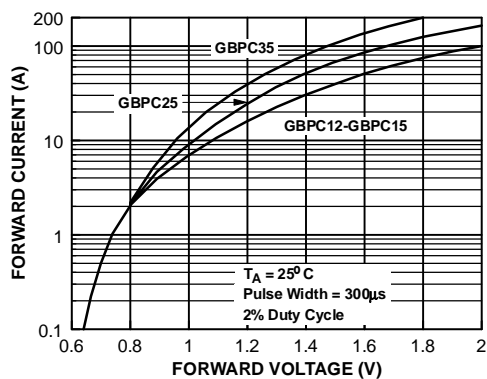
Forward Current Derating Curve



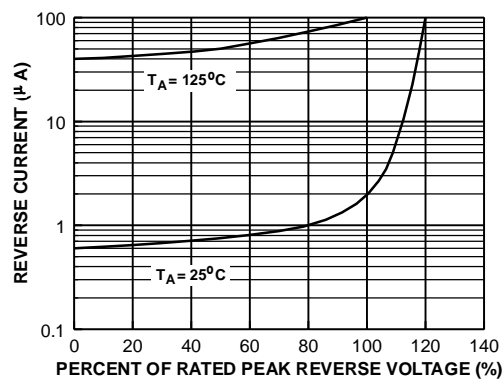
Non-Repetitive Surge Current



Forward Characteristics



Reverse Characteristics



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FACT™	QS™
FACT Quiet Series™	Quiet Series™
FAST®	SuperSOT™-3
FASTr™	SuperSOT™-6
GTO™	SuperSOT™-8
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