

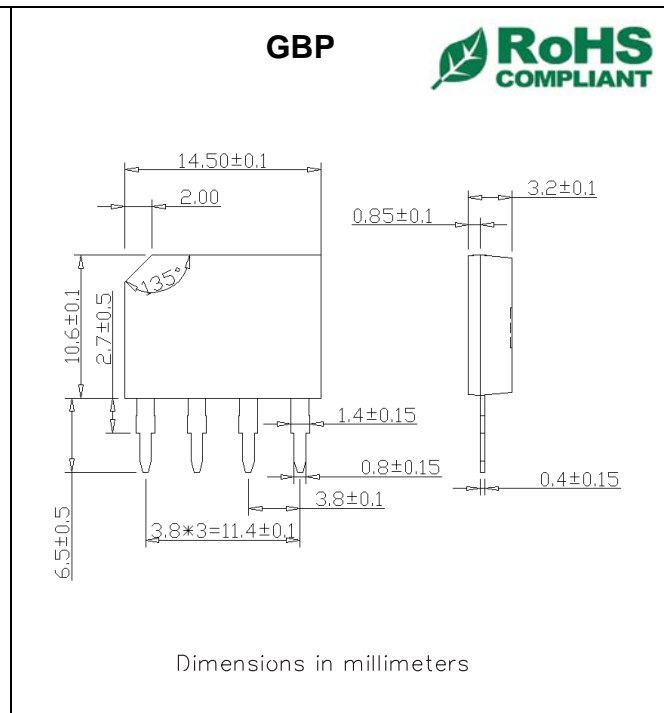


# GBP3005 - GBP310 Bridge Rectifiers



## Features

- Surge overload rating-80 amperes peak
- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory
- Flammability Classification 94V-0
- Mounting position: Any
- Lead: Silver Plated Cooper Lead.



## Absolute Maximum Ratings \* $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value							Units
		GBP3005	GBP301	GBP302	GBP304	GBP306	GBP308	GBP310	
$V_{RRM}$	Maximum Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
$V_{RMS}$	Maximum RMS Bridge Input Voltage	35	70	140	280	420	560	700	V
$V_R$	DC Reverse Voltage (Rated $V_R$ )	50	100	200	400	600	800	1000	V
$I_{F(AV)}$	Average Rectified Forward Current @ $T_A = 40^\circ\text{C}$	3							A
$I_{FSM}$	Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-Sine-Wave	60							A
$T_{STG}$	Storage Temperature Range	-55 to +150							$^\circ\text{C}$
$T_J$	Operating Junction Temperature	-55 to +150							$^\circ\text{C}$

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

## Thermal Characteristics

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	3.1	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient, * per leg	40	$^\circ\text{C/W}$

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

Symbol	Parameter	Value	Units
$V_F$	Forward Voltage, per element @ 3.0A	1.1	V
$I_R$	Reverse Current, per element @ rated $V_R$ $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	5.0 500	$\mu\text{A}$ $\mu\text{A}$
	$I^2t$ Rating for Fusing $t < 8.35\text{ms}$	10	$\text{A}^2\text{s}$
$C_T$	Total Capacitance, per leg $V_R = 4.0\text{V}, f = 1.0\text{MHz}$	25	pF

# Typical Characteristics

Fig. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

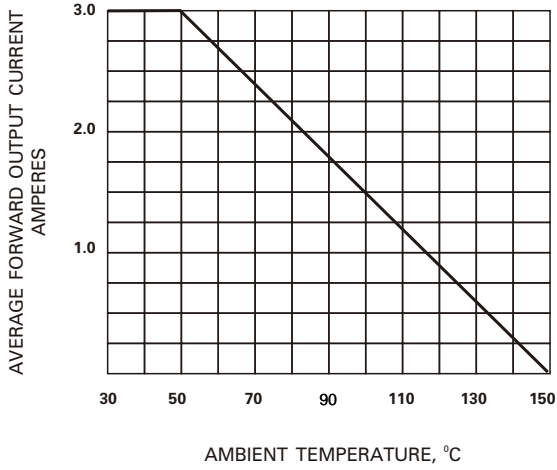


Fig. 2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

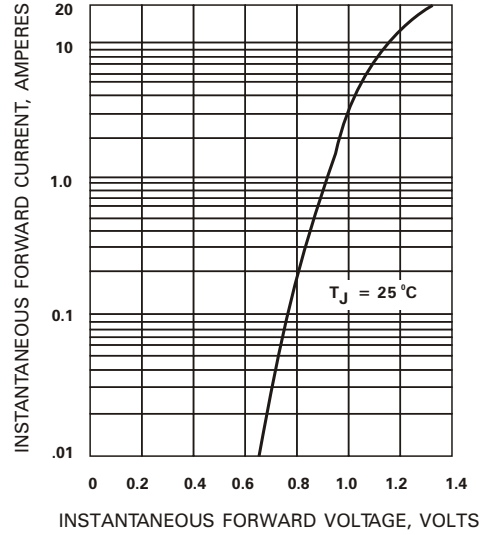


Fig. 3 - TYPICAL FORWARD CHARACTERISTICS

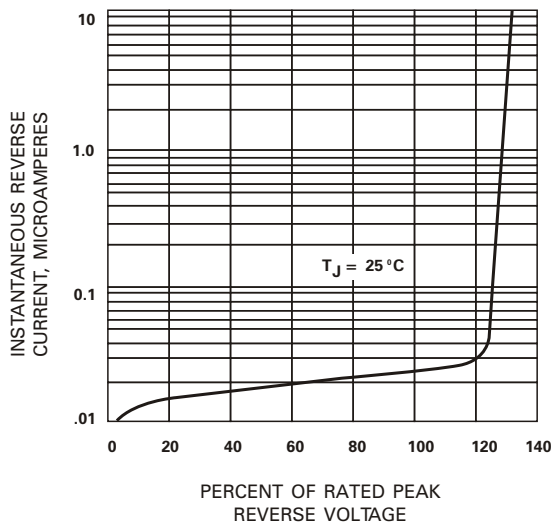
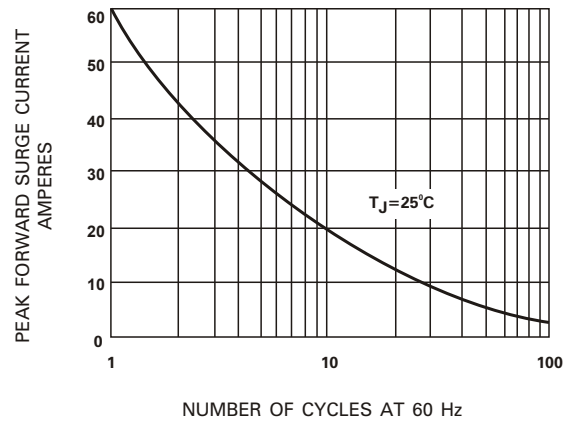


Fig. 4 - MAXIMUM FORWARD SURGE CURRENT



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