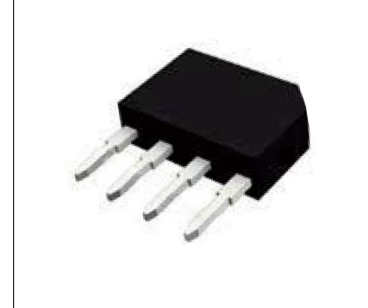


Bridge Rectifiers

GBP3005—GBP310

Features

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Glass passivated chip junction
- ◆ High forward surge capability



Mechanical Data

Case: GBP Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

High temperature soldering guaranteed: 260°C/10 seconds

Mounting Position: Any

Maximum Ratings & Electrical Characteristics

Ratings at TA = 25°C unless otherwise specified

Parameter	Symbol	GBP 3005	GBP 301	GBP 302	GBP 304	GBP 306	GBP 308	GBP 310	Unit
Maximum repetitive 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
Average forward rectified output current	$I_{F(AV)}$	3.0							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60							A
Rating for fusig (t<8.3ms)	I^2t	15.0							A ² sec
Maximum instantaneous forward voltage dropper leg at 3A	VF	1.10							V
Maximum DC reverse current at rated DC blocking voltage per leg	T _J =25°C	5.0							uA
	T _J =125°C								

Thermal Characteristics

Typical thermal resistance per leg (Note 1)	R _{θJA}	32	°C/W
	R _{θJL}	15	
Operating junction temperature range	T _J	-55 to +150	°C
Storage temperature range	T _{STG}	-55 to +150	°C

Note

(1) Units mounted on PCB with 0.47×0.47(12×12mm) Copper Pads

Bridge Rectifiers

GBP3005—GBP310

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

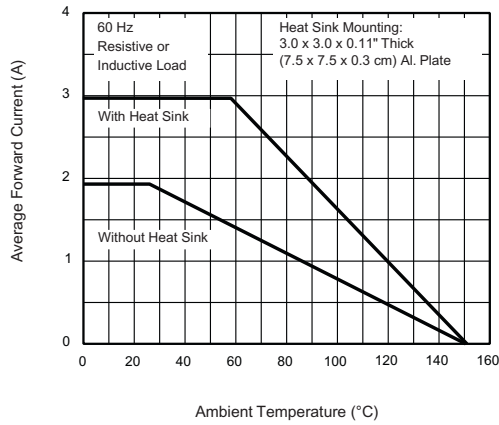


Figure 1. Forward Current Derating Curve

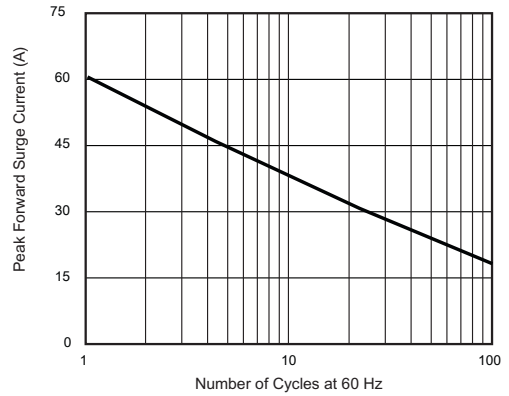


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

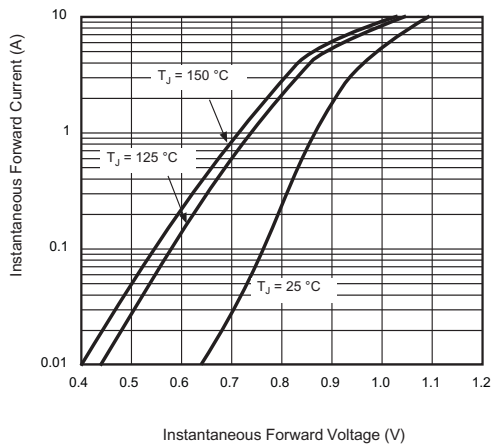


Figure 3. Typical Forward Characteristics Per Diode

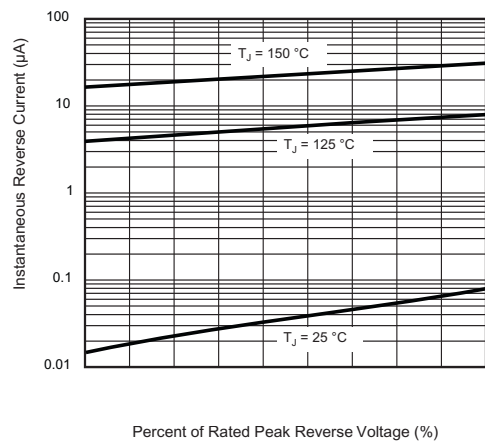


Figure 4. Typical Reverse Leakage Characteristics Per Diode

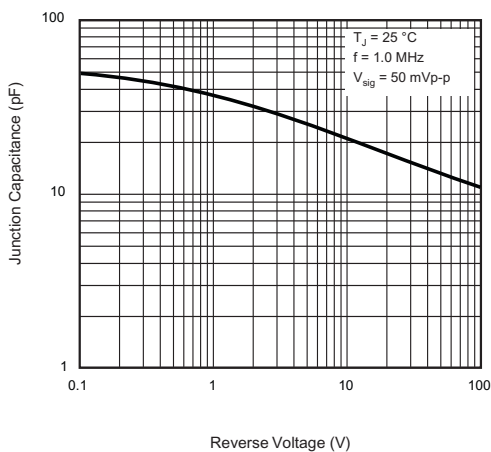


Figure 5. Typical Junction Capacitance Per Diode

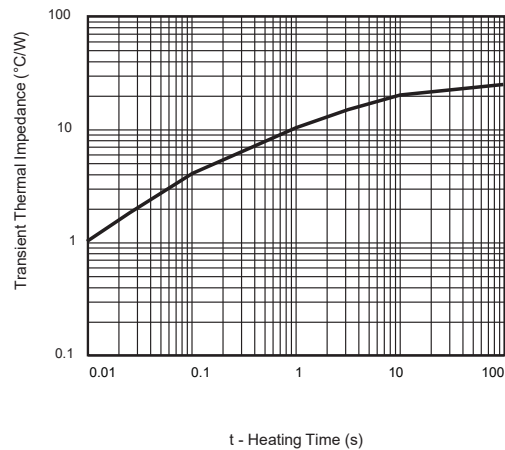
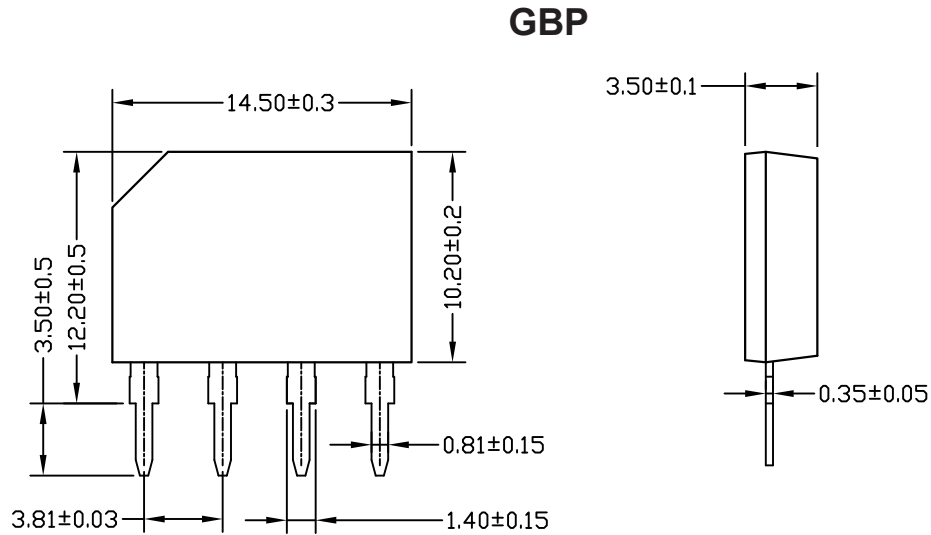


Figure 6. Typical Transient Thermal Impedance Per Diode

Bridge Rectifiers

GBP3005—GBP310

Package Outline Dimensions(unit:mm)



Ordering Information

Part No.	Marking	Package	Shipping	
GBP3005	GBP3005	GBP	500PCS /inner box	5000PCS /Box
GBP301	GBP301	GBP	500PCS /inner box	5000PCS /Box
GBP302	GBP302	GBP	500PCS /inner box	5000PCS /Box
GBP304	GBP304	GBP	500PCS /inner box	5000PCS /Box
GBP306	GBP306	GBP	500PCS /inner box	5000PCS /Box
GBP308	GBP308	GBP	500PCS /inner box	5000PCS /Box
GBP310	GBP310	GBP	500PCS /inner box	5000PCS /Box