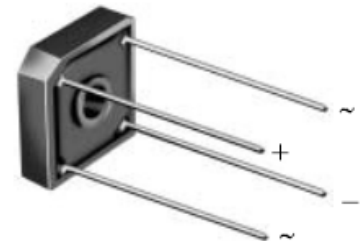


3.0A Glass Passivated Bridge Rectifier

Features

- Glass passivated chip junction
- High case dielectric strength 1500 VRMS
- Typical IR less than 0.1µA
- High surge current capability
- Ideal for printed circuit boards
- High temperature soldering guaranteed: 260°C/10 seconds
0.375" (9.5mm) lead length at 5lbs.(2.3kg) tension
- This series is UL recognized under component index, File number E194718
- RoHS compliant



GBPC1



Mechanical Data

Case:	GBPC1, Molded plastic body over passivated junctions
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Plated leads solderable per MIL-STD-750, Method 2026
Polarity:	As marked on case
Mounting Torque:	8.8 in. – lbs. max.
Weight:	0.1 ounce, 2.8 grams

Maximum Ratings And Electrical Characteristics (T_{amb}=25°C)

Symbols	Parameter	GBPC 1005	GBPC 101	GBPC 102	GBPC 104	GBPC 106	GBPC 108	GBPC 110	Unit	Conditions
VRRM	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
VRMS	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
VDC	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
IF(AV)	Maximum Average Forward Rectified Current	3.0							A	Tc=60° C Note 1
IFSM	Peak Forward Surge Current	60							A	8.3ms Single Sine-wave Superimposed on Rated Load (JEDEC Method)

3.0A Glass Passivated Bridge Rectifier

GBPC1005 - GBPC110

Symbols	Parameter	GBPC 1005	GBPC 101	GBPC 102	GBPC 104	GBPC 106	GBPC 108	GBPC 110	Unit	Conditions
I^2t	Rating for Fusing ($t < 8.3\text{ms}$)	15							A^2sec	
V_F	Maximum Instantaneous Forward Voltage Drop per leg	1.0							V	$I_F = 1.5\text{A}$
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage per leg	5.0							μA	$T_A = 25^\circ\text{C}$
		500								$T_A = 125^\circ\text{C}$
C_J	Typical Junction Capacitance per leg	21							pF	$V_R = 4\text{V}$, $f = 1\text{MHz}$
$R_{\theta JA}$	Typical Thermal Resistance per leg	12							$^\circ\text{C/W}$	Note 2
$R_{\theta JC}$		8.0								
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150							$^\circ\text{C}$	

- Note:**
- Unit mounted on 4.0 x 4.0 x 0.11" thick (10.5 x 10.5 x 0.3cm) aluminum plate.
 - Bolt down on heat sink with silicon thermal compound between bridge and mounting surface for maximum heat transfer with #6 screw.

Rating and Characteristic Curves

Fig.1- Derating Curve Output Rectified Current

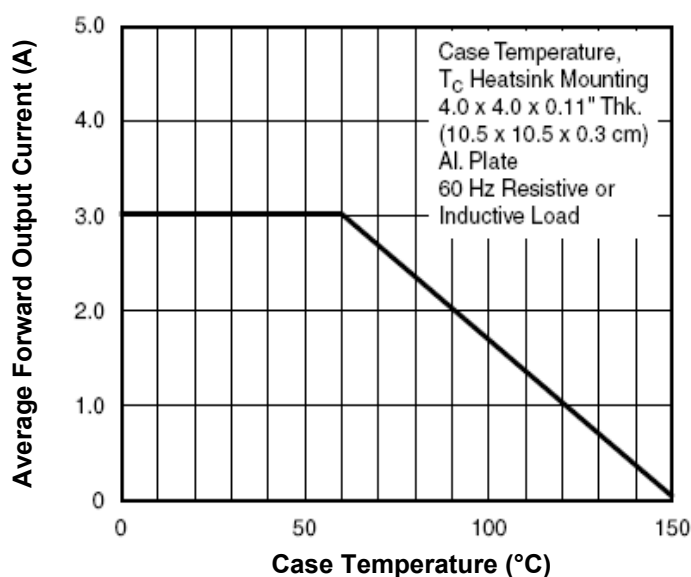
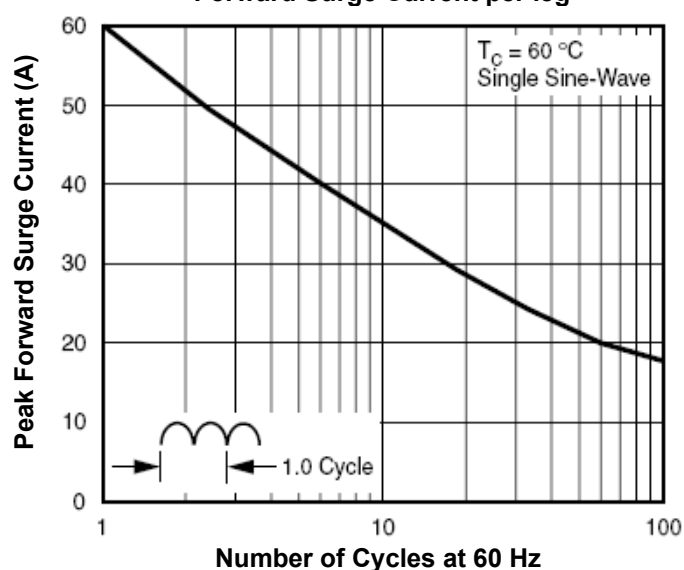


Fig.2-Maximum Non-Repetitive Peak Forward Surge Current per leg



3.0A Glass Passivated Bridge Rectifier

GBPC1005 - GBPC110

Fig.3-Typical Forward Characteristics per leg

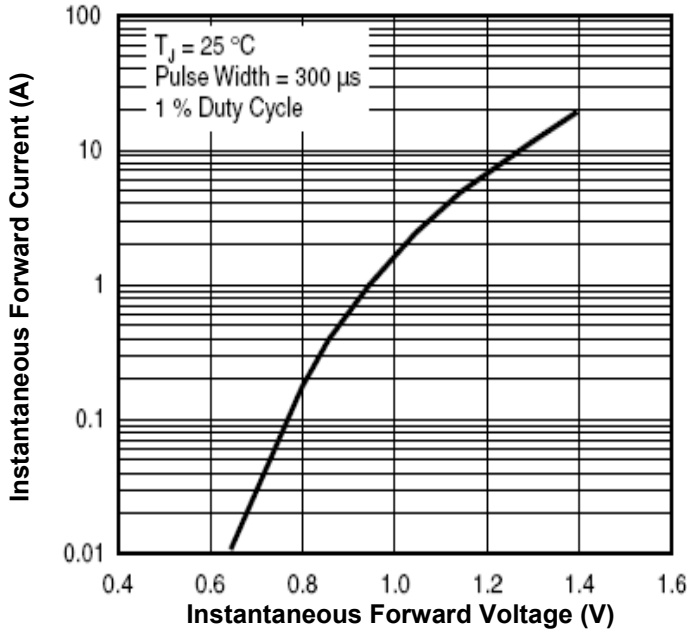


Fig.4-Typical Reverse Leakage Characteristics per leg

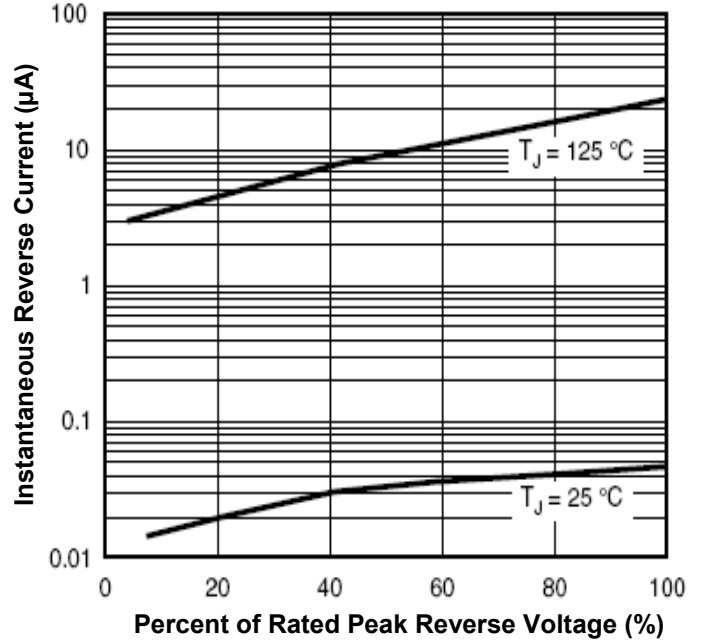
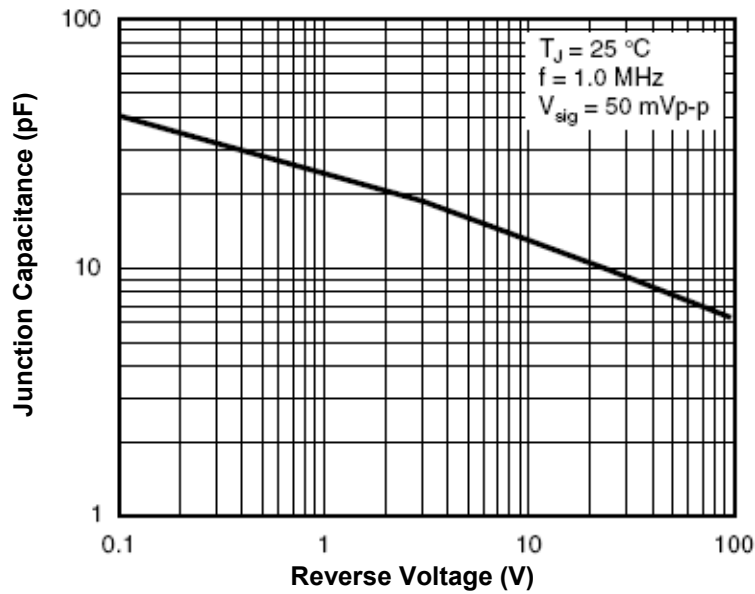


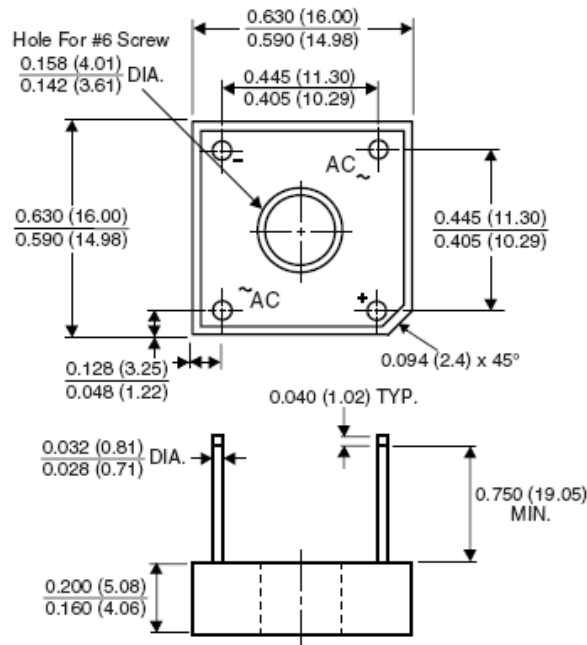
Fig.5-Typical Junction Capacitance per leg



3.0A Glass Passivated Bridge Rectifier

GBPC1005 - GBPC1110

Dimensions in inch (mm)



Case Style GBPC1

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