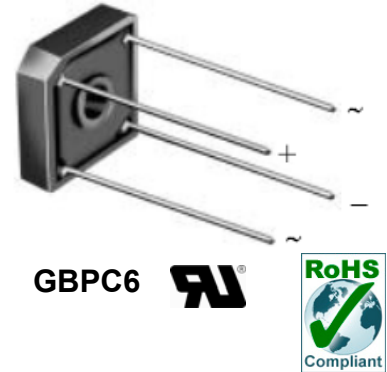


6.0A Glass Passivated Bridge Rectifier

Features

- Glass passivated chip junction
- High case dielectric strength 1500 VRMS
- Typical IR less than 0.5µA
- 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



Mechanical Data

Case:	GBPC6, 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 6005	GBPC 601	GBPC 602	GBPC 604	GBPC 606	GBPC 608	GBPC 610	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	6.0							A	Tc=50° C Note 1 & 2
IFSM	Peak Forward Surge Current	175							A	8.3ms Single Sine-wave Superimposed on Rated Load (JEDEC Method)

6.0A Glass Passivated Bridge Rectifier

GBPC6005 - GBPC610

Symbols	Parameter	GBPC 6005	GBPC 601	GBPC 602	GBPC 604	GBPC 606	GBPC 608	GBPC 610	Unit	Conditions
I^2t	Rating for Fusing ($t < 8.3\text{ms}$)	127							A^2sec	
V_F	Maximum Instantaneous Forward Voltage Drop per leg	1.0							V	$I_F = 3.0\text{A}$
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	186				90			pF	$V_R = 4\text{V}$, $f = 1\text{MHz}$
$R_{\theta JA}$	Typical Thermal Resistance per leg	22							$^\circ\text{C/W}$	Note 1
$R_{\theta JC}$		7.3								
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-55 to +150							$^\circ\text{C}$	

- Note:**
1. Bolt down on heat sink with silicon thermal compound between bridge and mounting surface for maximum heat transfer with #6 screw.
 2. Unit mounted on 5.5 x 6.0 x 0.11" thick (14 x 15 x 0.3cm) aluminum plate.

Rating and Characteristic Curves

Fig.1- Derating Curve Output Rectified Current

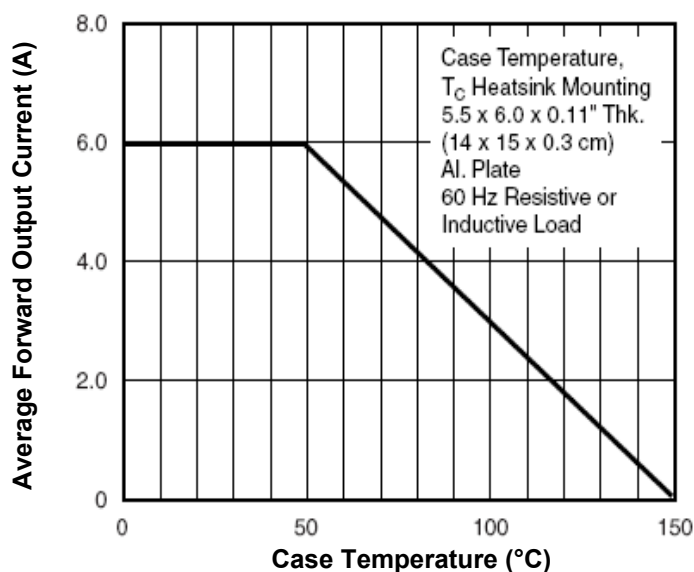
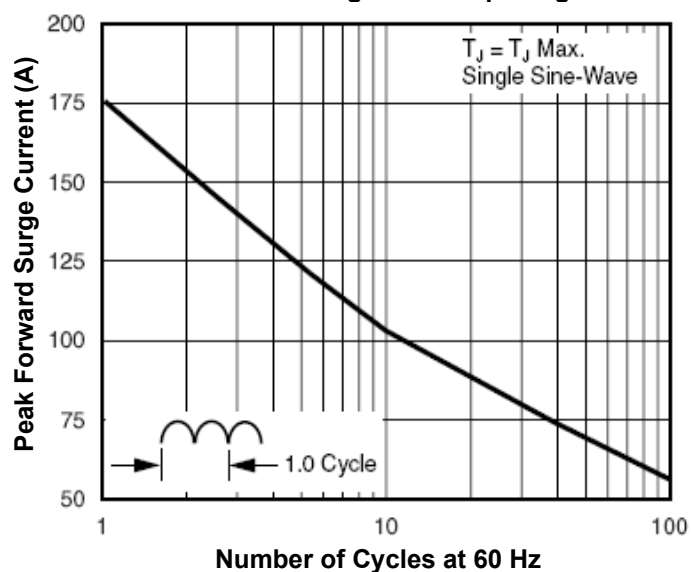


Fig.2-Maximum Non-Repetitive Peak Forward Surge Current per leg



6.0A Glass Passivated Bridge Rectifier

GBPC6005 - GBPC610

Fig.3-Typical Forward Characteristics per leg

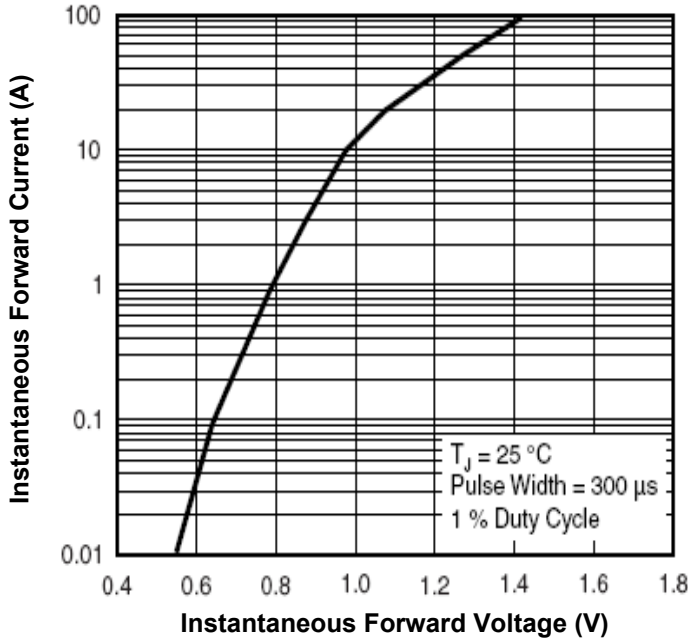


Fig.4-Typical Reverse Leakage Characteristics per leg

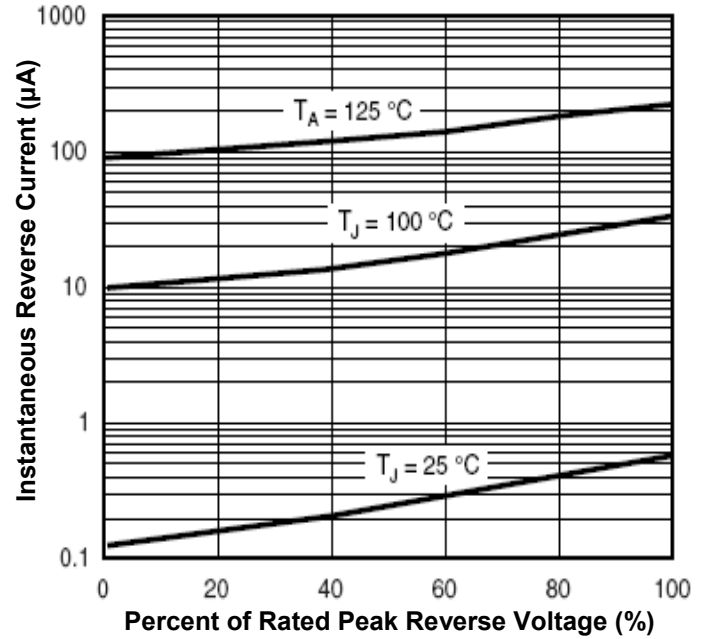
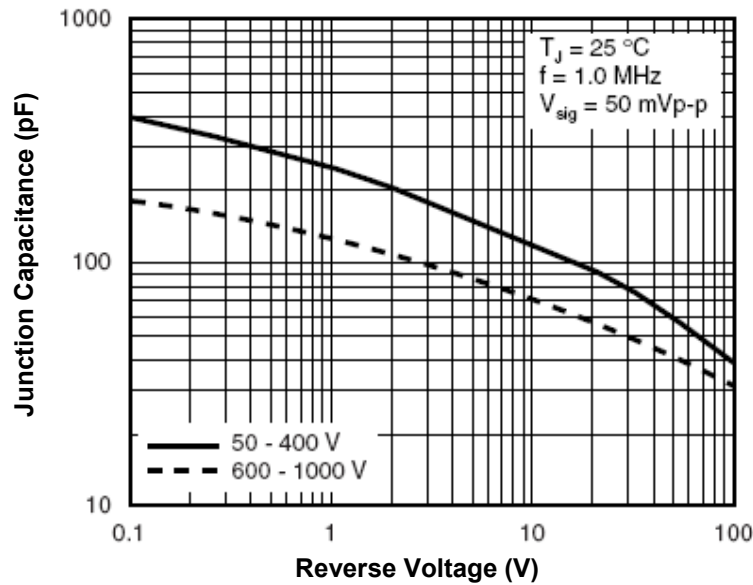


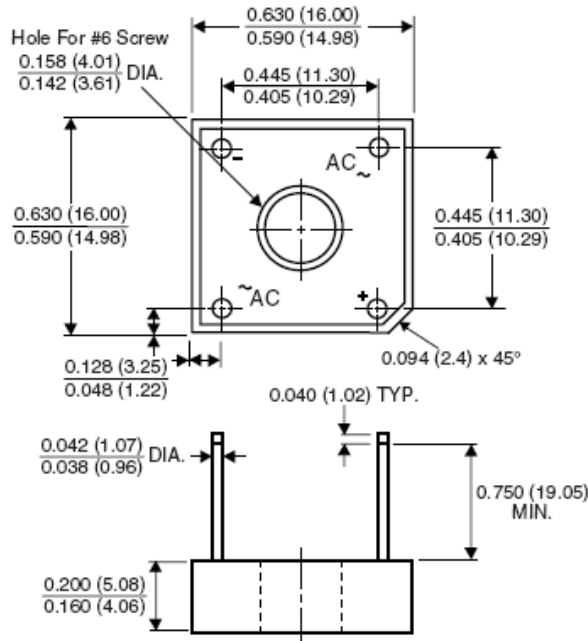
Fig.5-Typical Junction Capacitance per leg



6.0A Glass Passivated Bridge Rectifier

GBPC6005 - GBPC610

Dimensions in inch (mm)



Case Style GBPC6

How to contact us

US HEADQUARTERS

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162

Tel: (800) TAITRON (800) 824-8766 (661) 257-6060

Fax: (800) TAITFAX (800) 824-8329 (661) 257-6415

Email: taitron@taitroncomponents.com

Http://www.taitroncomponents.com

TAITRON COMPONENTS MEXICO, S.A .DE C.V.

BOULEVARD CENTRAL 5000 INTERIOR 5 PARQUE INDUSTRIAL ATITALAQUIA, HIDALGO C.P.

42970 MEXICO

Tel: +52-55-5560-1519

Fax: +52-55-5560-2190

TAITRON COMPONENTS INCORPORATED REPRESENTAÇÕES DO BRASIL LTDA

RUA DOMINGOS DE MORAIS, 2777, 2.ANDAR, SALA 24 SAÚDE - SÃO PAULO-SP 04035-001 BRAZIL

Tel: +55-11-5574-7949

Fax: +55-11-5572-0052

TAITRON COMPONENTS INCORPORATED, SHANGHAI REPRESENTATIVE OFFICE

METROBANK PLAZA, 1160 WEST YAN' AN ROAD, SUITE 1503, SHANGHAI, 200052, CHINA

Tel: +86-21-5424-9942

Fax: +86-21-5424-9931

TAITRON
components incorporated

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