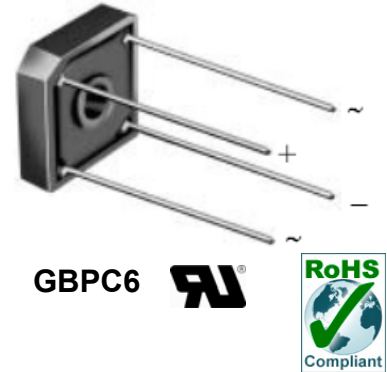


## 6.0A Glass Passivated Bridge Rectifier

### 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

|                         |  |
|-------------------------|--|
| <b>Case:</b>            | GBPC6, Molded plastic body over passivated junctions     |
| <b>Epoxy:</b>           | Plastic package has UL flammability classification 94V-0 |
| <b>Terminals:</b>       | Plated leads solderable per MIL-STD-750, Method 2026     |
| <b>Polarity:</b>        | As marked on case  |
| <b>Mounting Torque:</b> | 8.8 in. – lbs. max.                                      |
| <b>Weight:</b>          | 0.1 ounce, 2.8 grams                                     |

### Maximum Ratings And Electrical Characteristics (T<sub>amb</sub>=25°C)

| Symbols       | Parameter                                 | GBPC 6005 | GBPC 601 | GBPC 602 | GBPC 604 | GBPC 606 | GBPC 608 | GBPC 610 | Unit | Conditions   |
|---------------|---|-----------|----------|----------|----------|----------|----------|----------|------|--|
| <b>VRRM</b>   | Maximum Repetitive Peak Reverse Voltage   | 50        | 100      | 200      | 400      | 600      | 800      | 1000     | V    |  |
| <b>VRMS</b>   | Maximum RMS Voltage                       | 35        | 70       | 140      | 280      | 420      | 560      | 700      | V    |  |
| <b>VDC</b>    | Maximum DC Blocking Voltage               | 50        | 100      | 200      | 400      | 600      | 800      | 1000     | V    |  |
| <b>IF(AV)</b> | Maximum Average Forward Rectified Current | 6.0       |          |          |          |          |          |          | A    | Tc=50° C<br>Note 1 & 2   |
| <b>IFSM</b>   | 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

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| 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 <sup>2</sup> sec                    |                           |
| $V_F$           | 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         |          |          |          |          |          |          | $\mu\text{A}$      |                                       | $T_A = 25^\circ\text{C}$  |
|                 |   | 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

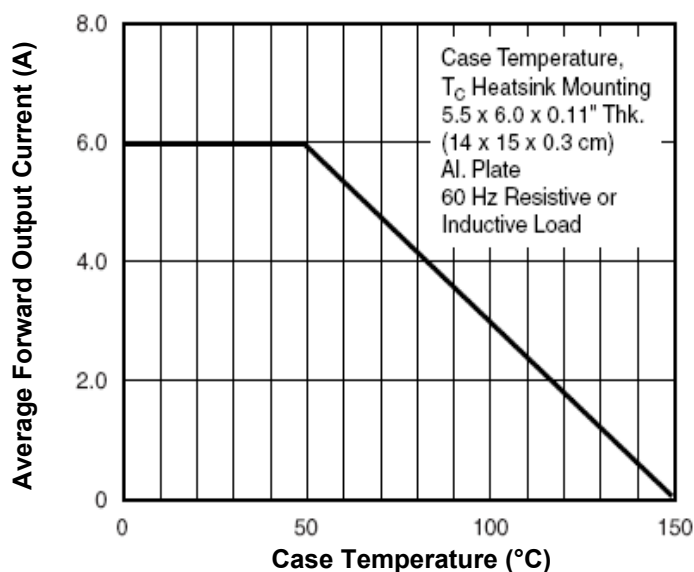
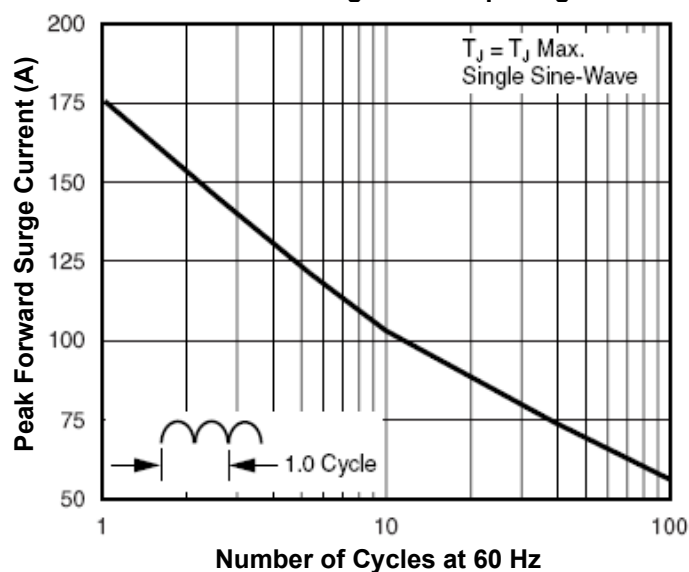


Fig.2-Maximum Non-Repetitive Peak Forward Surge Current per leg

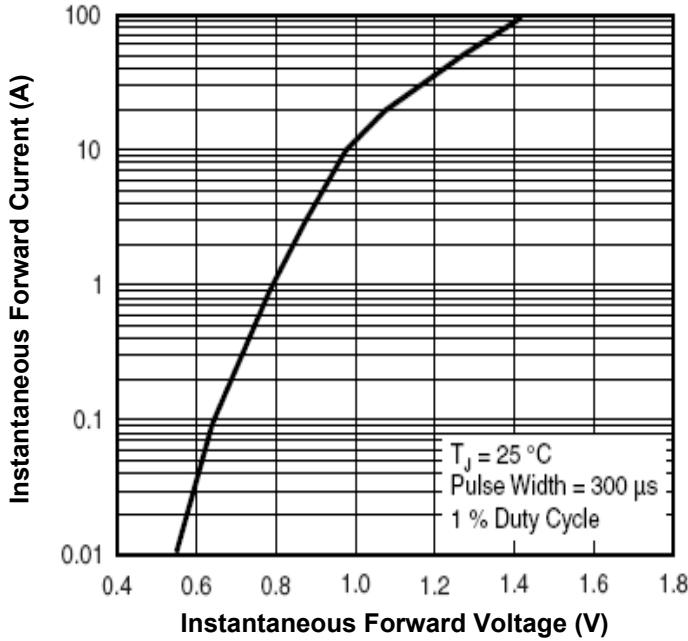


# 6.0A Glass Passivated Bridge Rectifier

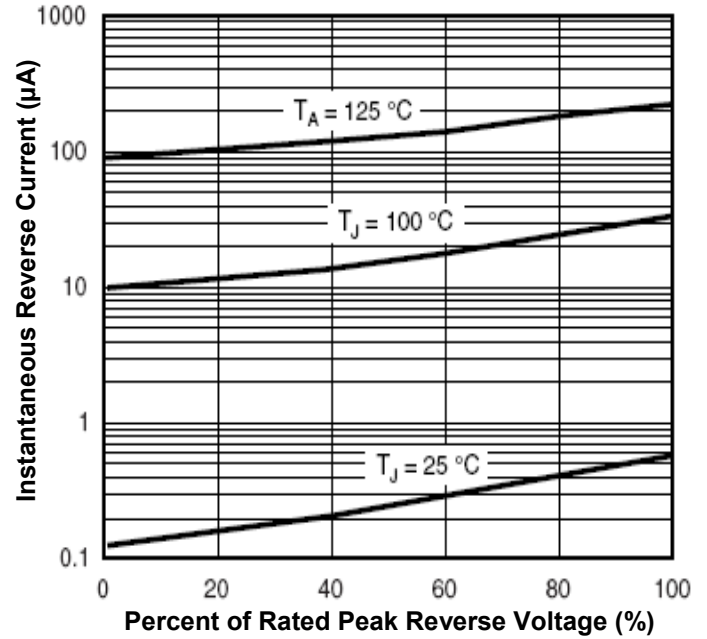
## GBPC6005 - GBPC610

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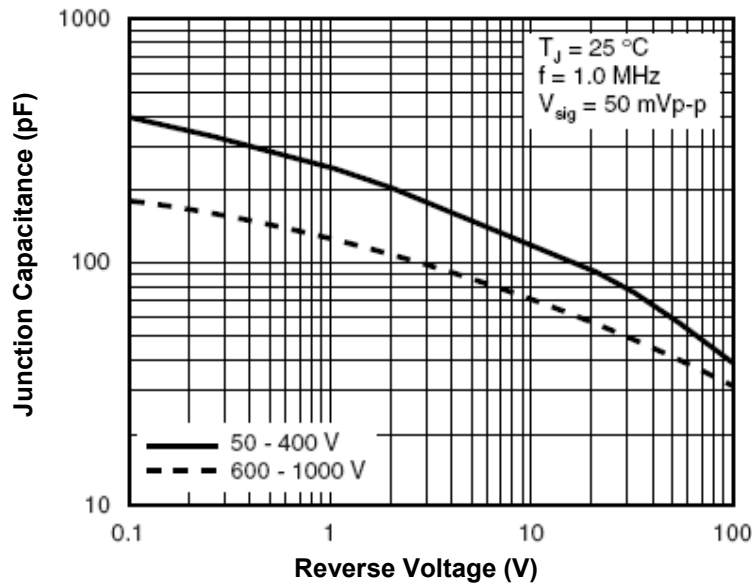
**Fig.3-Typical Forward Characteristics per leg**



**Fig.4-Typical Reverse Leakage Characteristics per leg**



**Fig.5-Typical Junction Capacitance per leg**

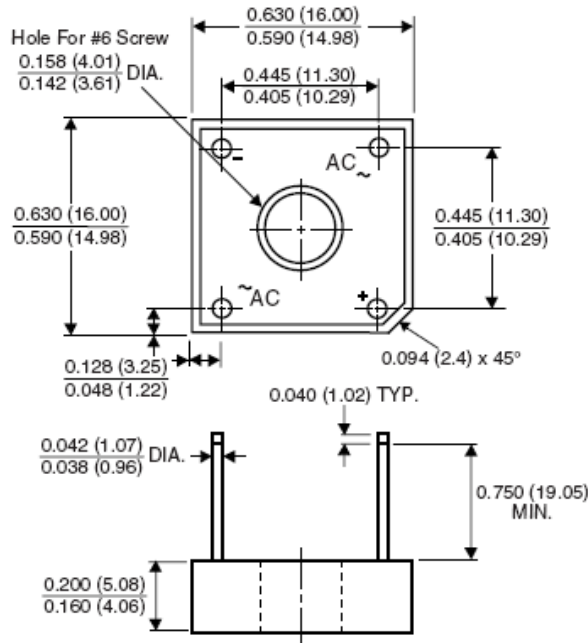


# 6.0A Glass Passivated Bridge Rectifier

## GBPC6005 - GBPC610

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### Dimensions in inch (mm)



### How to contact us

### Case Style GBPC6

#### 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](mailto:taitron@taitroncomponents.com)

Http://[www.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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