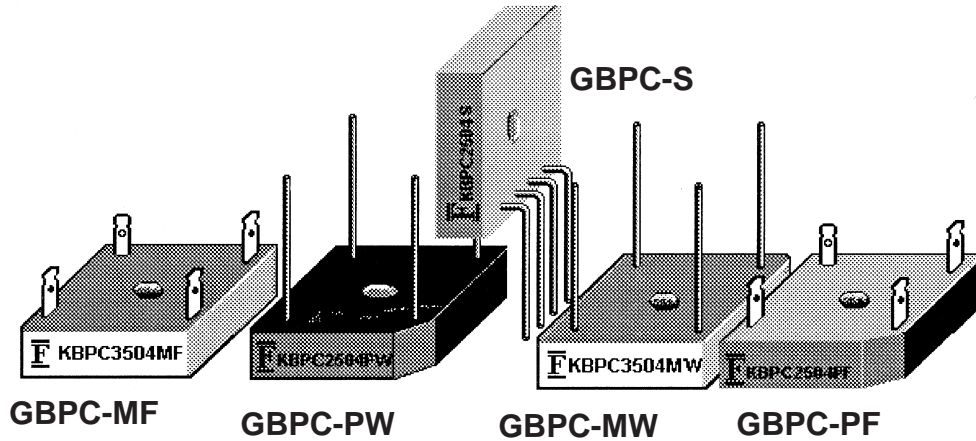


**Description**

**GBPC1500~1512**



Dimensions in millimeters (1mm=0.0394")

**Features**

- \* Surge overload ratings to 300 amperes
- \* This series is UL listed under the Recognized Component Index, file number E142814
- \* The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- \* Universal 4-way terminals, snap-on, wrap-around, solder or P.C. Board mounting
- \* High temperature soldering guaranteed 265 C/10 seconds at 5 lbs (2.3kg) tension

**Mechanical Data**

- \* Case: Metal case
- \* Terminals: Plated .25" (6.53mm) Faston
- \* Mounting Position: Bolt down on heat-sink with silicone thermal compound between bridges and mounting surface for maximum heat transfer efficiency
- \* Mounting Position: Any
- Weight: 0.706 ounce, 20 grams (approx)

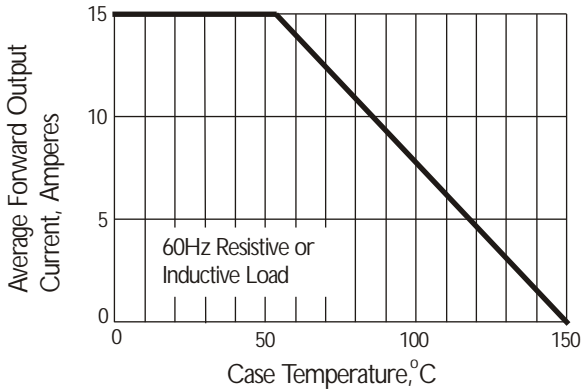
**Maximum Ratings & Thermal Characteristics**

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
For Capacitive load derate current by 20%.

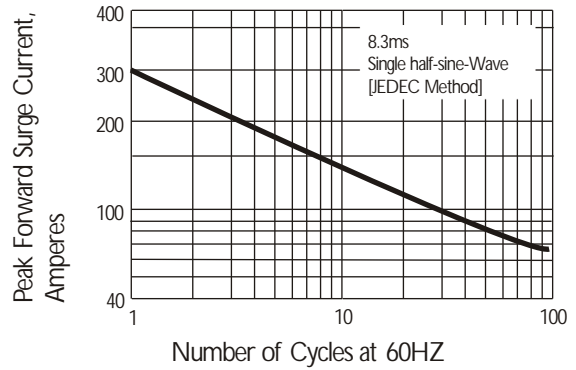
| Parameter   | Symbol           | GBPC 1500    | GBPC 1501 | GBPC 1502 | GBPC 1504 | GBPC 1506 | GBPC 1508 | GBPC 1510 | GBPC 1512 | unit               |
|---|------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------------|
| Maximum repetitive peak reverse voltage   | VRRM             | 50           | 100       | 200       | 400       | 600       | 800       | 1000      | 1200      | V                  |
| Maximum RMS bridge input voltage  | VRMS             | 35           | 70        | 140       | 280       | 420       | 560       | 700       | 840       | V                  |
| Maximum DC blocking voltage   | VDC              | 50           | 100       | 200       | 400       | 600       | 800       | 1000      | 1200      | V                  |
| Maximum average forward rectified output current at TA=55°C                           | IF(AV)           | 15           |           |           |           |           |           |           |           | A                  |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM             | 300          |           |           |           |           |           |           |           | A                  |
| Rating for fusing ( t<8.3ms)  | I <sup>2</sup> t | 374          |           |           |           |           |           |           |           | A <sup>2</sup> sec |
| Typical thermal resistance per element (1)  | ReJA             | 2.1          |           |           |           |           |           |           |           | °C/W               |
| Isolation voltage from case to leads  |                  | 2500         |           |           |           |           |           |           |           | Vac                |
| Operating junction and storage temperature range                                      | TJ, TSTG         | -55 to + 150 |           |           |           |           |           |           |           | °C                 |
| MAX instantaneous forward voltage drop / leg 7.5A                                     | VF               | 1.0          |           |           |           |           |           |           |           | V                  |
| MAX DC reverse current at rated Ta=25C°   | IR               | 10           |           |           |           |           |           |           |           | uA                 |
| DC blocking voltage per element Ta=125C°  |                  | 500          |           |           |           |           |           |           |           | uA                 |

**Rating and Characteristic Curves** (TA=25°C Unless otherwise noted)  
**GBPC15005 thru GBPC1512**

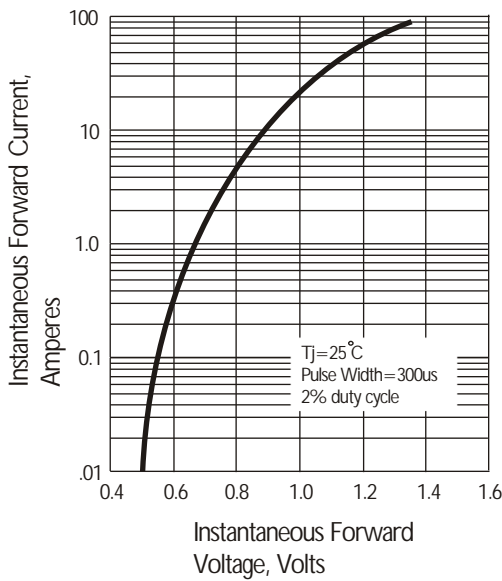
**Fig. 1 Derating Curve for Output Rectified Current**



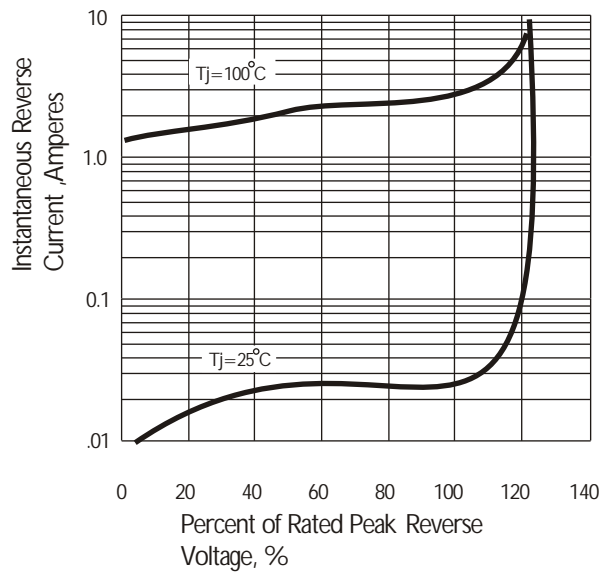
**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



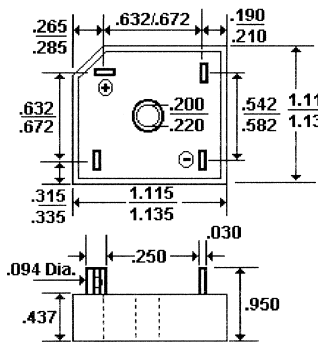
**Fig. 4 Typical Reverse Characteristics at Tj=25°C**



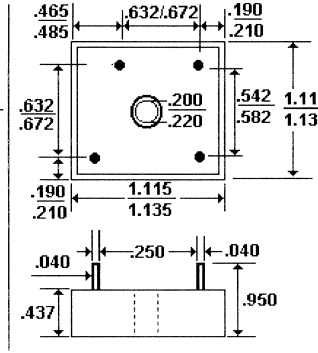


# 15Amps Glass Passivated Single Phase Silicon Bridge

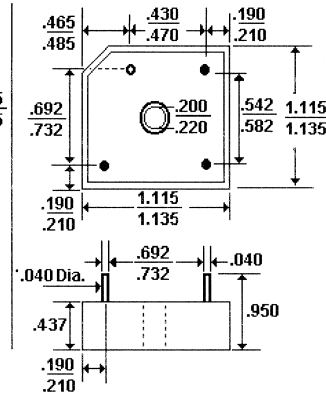
GBPC1500~1512



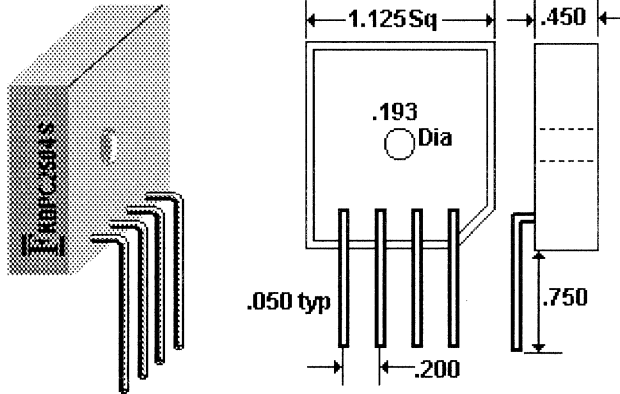
Plastic Case/Fastons



Metal Case/Wire Leads



Plastic Case/Wire Leads



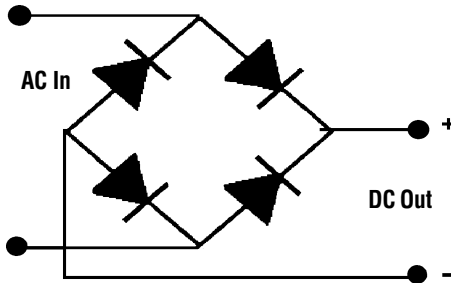
Ratings at 25 Deg. C ambient temperature unless otherwise specified.

Single Phase Half Wave, 60 HZ Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

- NOTES:**
1. Corrosion-Resistant Terminals Designed for .250" Female Quick Connect Wrap Around or Solder.
  2. A Thin Film of Silicone Thermal Compound is Recommended Between Bridge and Mounting Surface for Improved Thermal Conduction.
  3. These FCI Bridges Are Also Available in Fast Recovery, In Positive and Negative Center Tap and in Double Configurations. Consult with FCI for Your Special Requirements.

**GBPC1500~1512**



Case - Metal or Molded Plastic

Terminals - Plated .25" Faston or Plated Copper Wire Leads .040" Diameter

Weight - 0.706 Ounces, 20 Grams

Mounting Position - Any with Bolt Down with Silicone Thermal Compound Between Bridge and Mounting Surface for Optimum Heat

Transfer

Mounting Torque - 20 Inch Pound Max

### Ordering Information

FCI'S KBPC Series of Bridges Can Be Ordered with Options on Terminals and Case Materials.

#### How To Specify Case Material and Terminal Options:

- For Metal Case, Order Suffix (1) "M"
- For Plastic Case, Order Suffix (1) "P"
- For Faston Terminals, Order Suffix (2) "F"
- For Wire Lead Terminals, Order Suffix (2) "W"

### KBPC Series Examples

To Order a 25 Amp, 400 Volt Bridge with Faston Leads and a Plastic Case:

Specify **-GBPC2504PF** . . . Where "P" = Plastic and "F" = Faston Terminals

To Order a 35 Amp, 800 Volt Bridge with Wire Leads and a Metal Case:

Specify **-GBPC3508MW** . . . Where "M" = Metal and "W" = Wire Leads (Terminals)

To Order a 15 Amp, 200 Volt, UL Recognized Bridge with Wire Leads and a Plastic Case:

Specify **-GBPC1502PWU** . . . Where "P" = Plastic and "W" = Wire Leads (Terminals) and "U" = UL Recognized

**NOTE:** Fast Recovery Bridges (Diodes) Are Available; Please Contact FCI Components.

### GBPC - "S" Series Examples

To Order Bridges with the "In-Line" Pin Configuration, Select the Current and Voltage Desired and Add "S" as the Suffix, as shown in the following example.

To Order a 35 Amp, 800 Volt Bridge with In-Line Wire Leads:

Specify **GBPC3508S** . . . Where "S" = In-Line Wire Lead Terminals