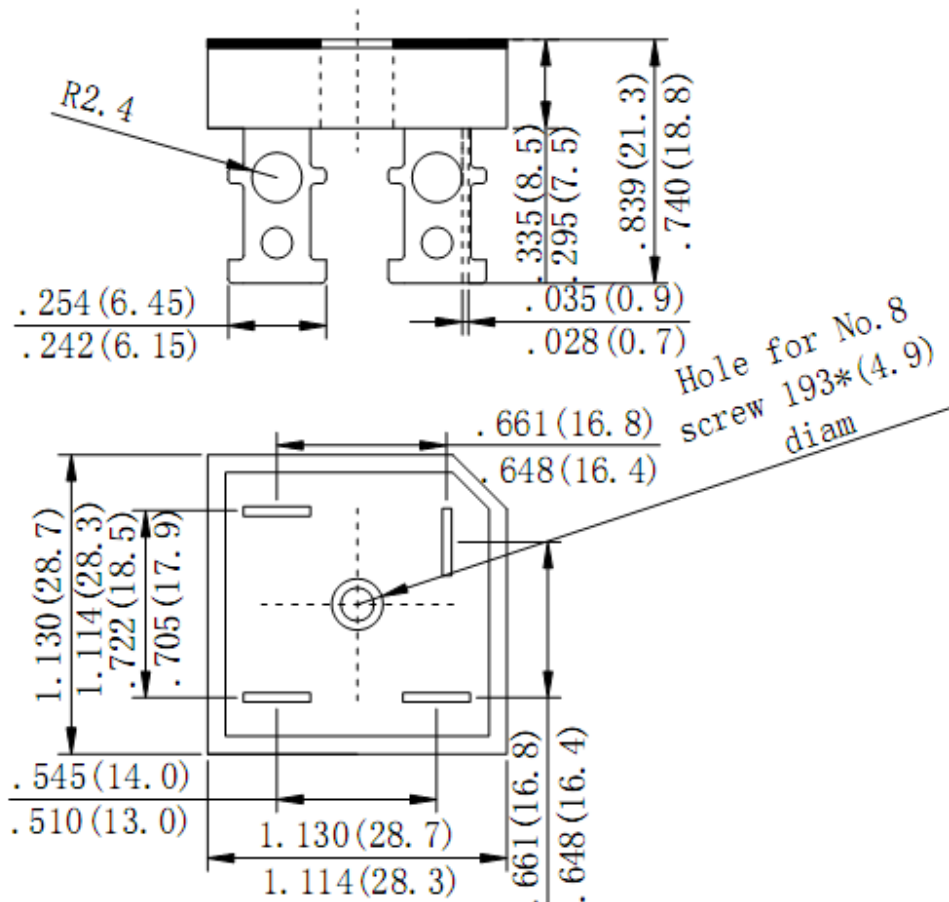


**GBPC35005-GBPC3512**
**Single-Phase 35.0A Glass Passivated Bridge Rectifier**
**Features:**

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

**Mechanical Data:**

- Case: GBPC, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: As marked on case
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version

**Mechanical Dimensions: In Inches/mm**

**GBPC**

- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - [sales@smc-diodes.com](mailto:sales@smc-diodes.com) •

**Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified.

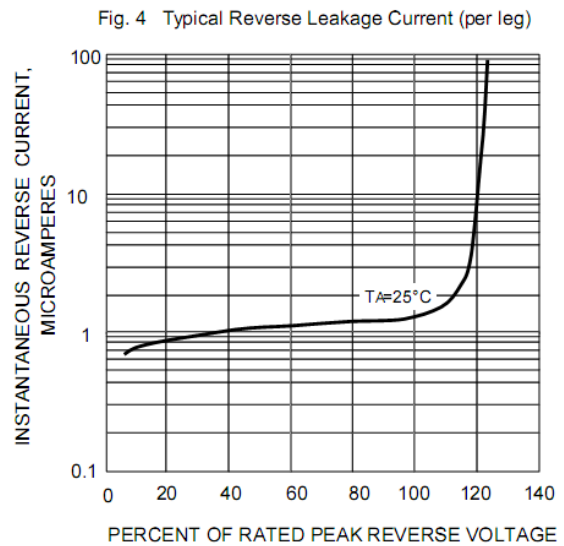
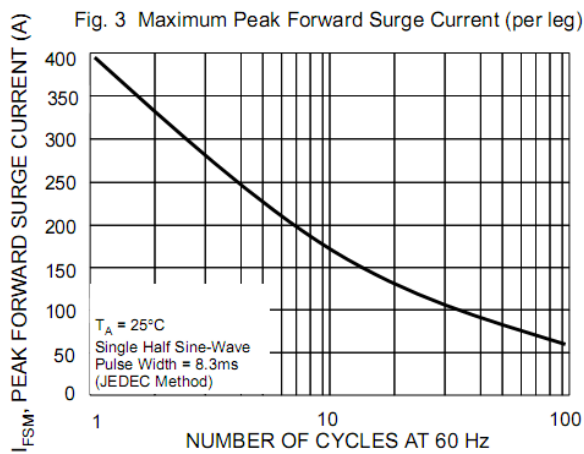
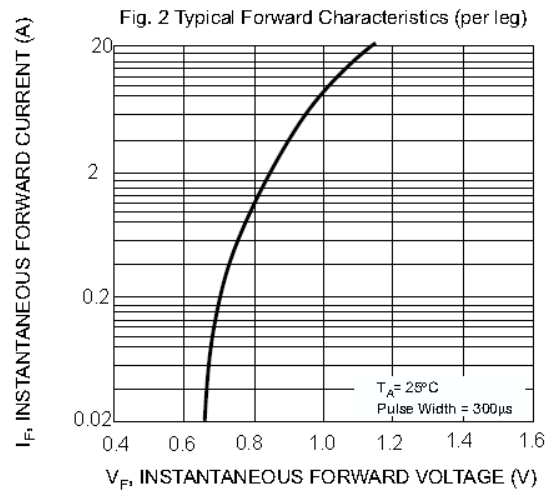
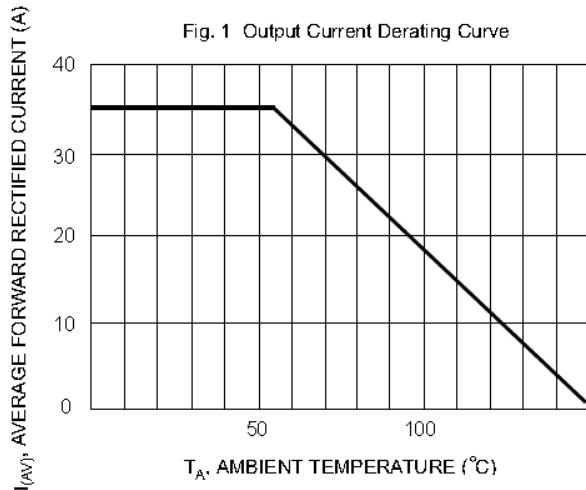
Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| Type Number   | Symbol                             | GBPC<br>35005 | GBPC<br>3501 | GBPC<br>3502 | GBPC<br>3504 | GBPC<br>3506 | GBPC<br>3508 | GBPC<br>3510 | GBPC<br>3512 | Unit               |
|---|------------------------------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | $V_{RRM}$<br>$V_{RWM}$<br>$V_{DC}$ | 50            | 100          | 200          | 400          | 600          | 800          | 1000         | 1200         | V                  |
| RMS Reverse Voltage   | $V_{RMS}$                          | 35            | 70           | 140          | 280          | 420          | 560          | 700          | 840          | V                  |
| Average forward rectified output current<br>(Note 1) @ $T_A = 55^\circ\text{C}$                                       | $I_O$                              | 35.0          |              |              |              |              |              |              |              | A                  |
| Non-Repetitive Peak Forward Surge Current<br>8.3ms Single half sine-wave superimposed<br>on rated load (JEDEC Method) | $I_{FSM}$                          | 400           |              |              |              |              |              |              |              | A                  |
| Forward Voltage (per element) @ $I_F = 17.5\text{A}$  | $V_{FM}$                           | 1.1           |              |              |              |              |              |              |              | V                  |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$           | $I_R$                              | 5.0<br>500    |              |              |              |              |              |              |              | $\mu\text{A}$      |
| Typical Junction Capacitance(per leg)<br>(Note 2)   | $C_J$                              | 300           |              |              |              |              |              |              |              | pF                 |
| Typical Thermal Resistance (per leg)  | $R_{\theta JL}$                    | 2.2           |              |              |              |              |              |              |              | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range   | $T_J, T_{STG}$                     | -55 to +150   |              |              |              |              |              |              |              | $^\circ\text{C}$   |
| Case Style  | GBPC                               |               |              |              |              |              |              |              |              |                    |

 Note: 1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.





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