



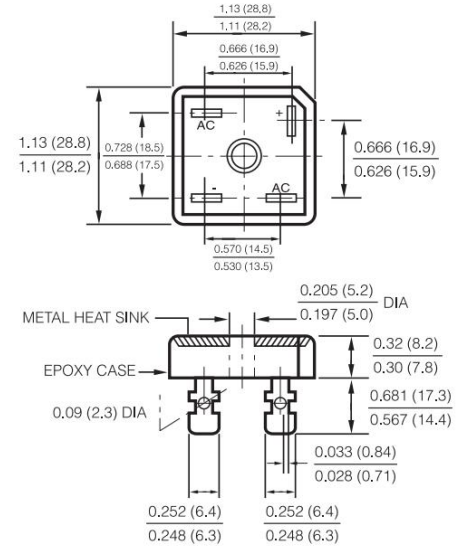
GBPC2501 THRU GBPC2510

VOLTAGE RANGE 100to 1000 Volts
CURRENT 25 Ampere



Features

- Rating to 1000V PRV
- High efficiency
- Glass passivated chip junction
- Electrically isolated metal case for maximum heat dissipation
- The plastic material has UL flammability classification 94V-0
- Electrically isolated base-2500 Vlots



Mechanical Data

- Case: Molded plastic with Heatsink internally mounted in the bridge encapsulation
- Polarity: As marked on Body
- Mounting: Hole for # 10 screw
- Weight: 0.13 ounce, 3.66 gram

Maximum Ratings and Electrical Characteristics

- Ratings 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 S | GBPC 2501 | GBPC 2502 | GBPC 2504 | GBPC 2506 | GBPC 2508 | GBPC 2510 | UNIT |
|---|------------|-------------|-----------|-----------|-----------|-----------|-----------|------------------|
| Maximum Reverse Peak Repetitive Voltage | V_{RRM} | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum RMS Voltage | V_{RMS} | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Maximum Average Forward Rectified Output Current, at $T_C = T_A$ | $I_{(AV)}$ | 25.0 | | | | | | Amps |
| Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load | I_{FSM} | 300 | | | | | | Amps |
| Rating for Fusing ($t < 8.3ms$) ^(Note1) | I^2t | 508 | | | | | | A ² s |
| Maximum Instantaneous Forward Voltage drop Per Bridge element 12.5A | V_F | 1.1 | | | | | | Volts |
| Maximum Reverse Current at rated DC blocking voltage per element | I_R | 5.0 | | | | | | μAmps |
| | | 500 | | | | | | |
| Typical Junction Capacitance Per Element ^(Note2) | C_j | 130 | | | | | | pF |
| Typical Thermal Resistance ^(NOTE 3) | $R_{θJC}$ | 5.0 | | | | | | °C/W |
| Operating Temperature Range | T_j | -55 to +150 | | | | | | °C |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | °C |

Notes:

1. Measured at non-repetitive, for greater than 1ms and less than 8.3ms.
2. Measured at 1.0MHz and applied reverse voltage of 1.0V DC.
3. Device mounted on 300mm×300mm×1.6mm Cu Plate Heatsink.

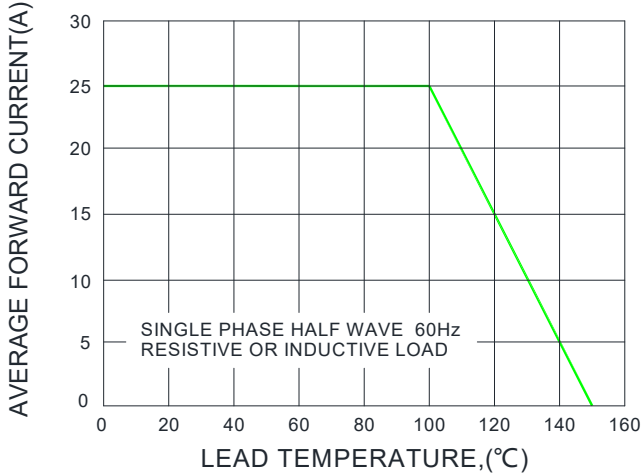


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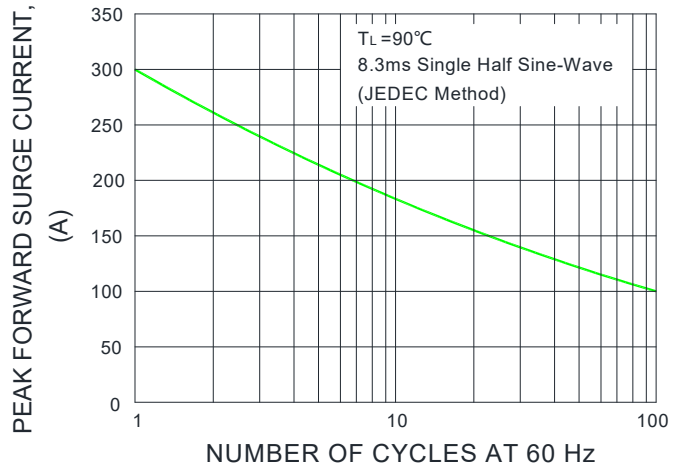
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Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

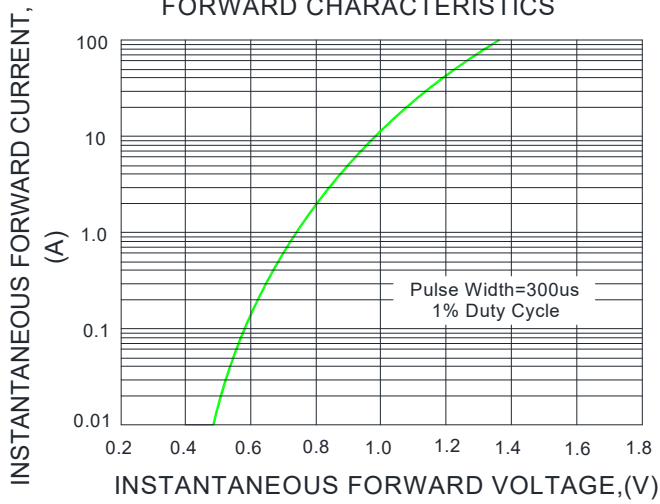
F1G.1-FORWARD CURRENT DERATING CURVE



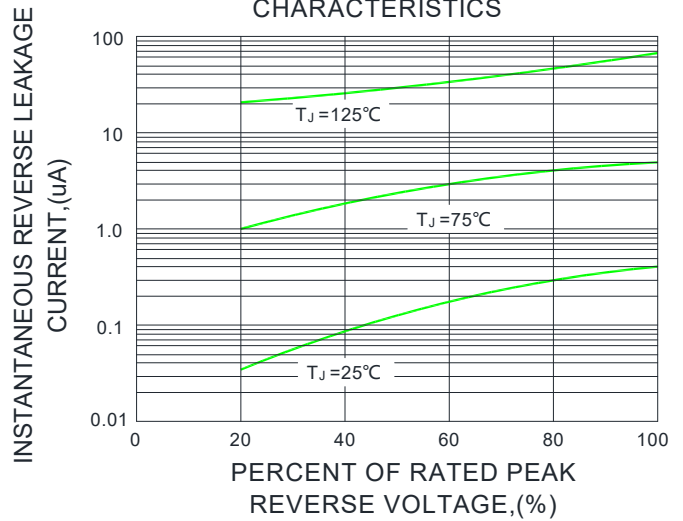
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



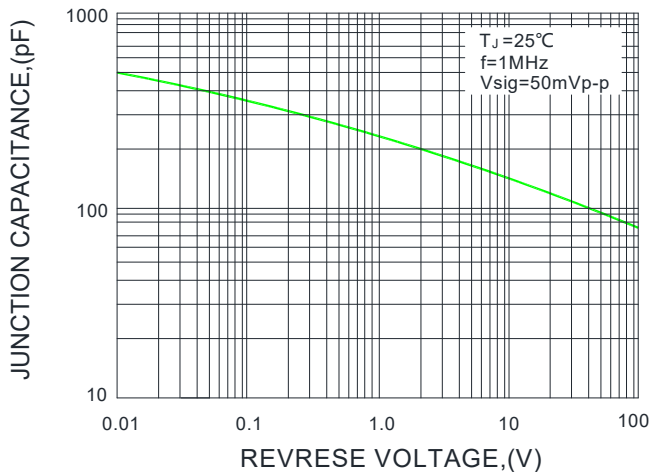
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE





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| | |
|---------------|------------------|
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| CURRENT | 25 Ampere |

Disclaimer

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