# GPP1A THRU GPP1M

## GLASS PASSIVATED JUNCTION RECTIFIER

**VOLTAGE: 50 TO 1000V** **CURRENT: 1.0A**

VOLTARISTECH INC.
POWER • PRECISION • INNOVATION

## FEATURE

Molded case feature for auto insertion
High current capability
Low leakage current
High surge capability
High temperature soldering guaranteed
250°C /10sec/0.375" lead length at 5 lbs tension
Glass Passivated chip

## MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity: color band denotes cathode
Mounting position: any

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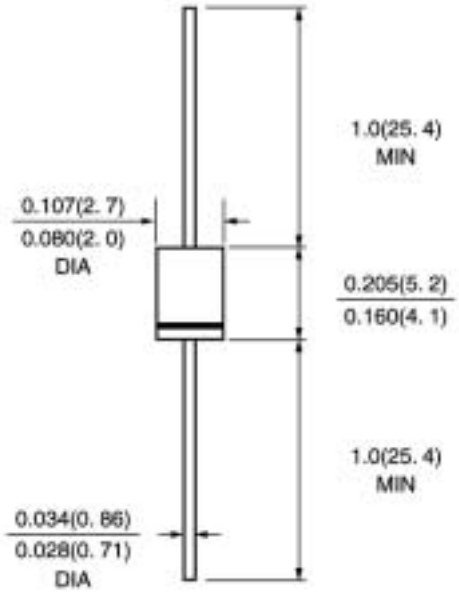



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

| | SYMBOL | GPP 1A | GPP 1B | GPP 1D | GPP 1G | GPP 1J | GPP 1K | GPP 1M | units |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | Vrrm | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | Vrms | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking Voltage | Vdc | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current 3/8" lead length at Ta =75°C | If(av) | 1.0 | | | | | | | A |
| Peak Forward Surge Current 8.3ms single Half sine-wave superimposed on rated load | Ifsm | 30.0 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at rated forward current | Vf | 1.1 | | | | | | | V |
| Maximum full load reverse current full cycle at $T_L$ =75°C | Ir(av) | 30.0 | | | | | | | μA |
| Maximum DC Reverse Current Ta =25°C<br>at rated DC blocking voltage Ta =100°C | Ir | 5.0<br>50.0 | | | | | | | μA<br>μA |
| Typical Junction Capacitance (Note 1) | Cj | 15.0 | | | | | | | pF |
| Operating Temperature (Note 2) | R(ja) | 50.0 | | | | | | | °C/W |
| Storage and Operation Junction Temperature | Tstg, Tj | -55 to +150 | | | | | | | °C |

Note:
1. Measured at 1.0 MHz and applied voltage of 4.0Vdc
2. Thermal Resistance from Junction to Ambient at 0.375" lead length, P.C. Board Mounted

## RATINGS AND CHARACTERISTIC CURVES GPP1A THRU GPP1M

[1]

FIG. 1 - FORWARD CURRENT DERATING CURVE

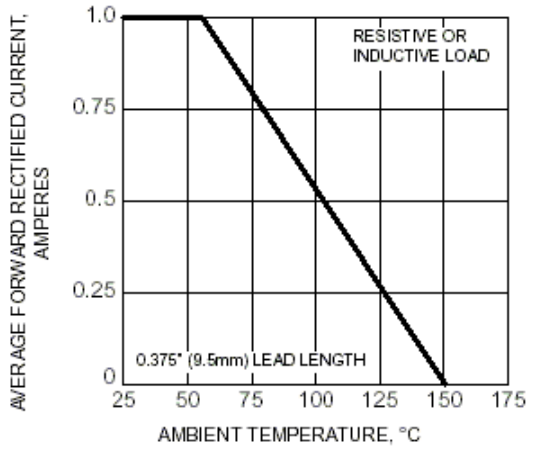



FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

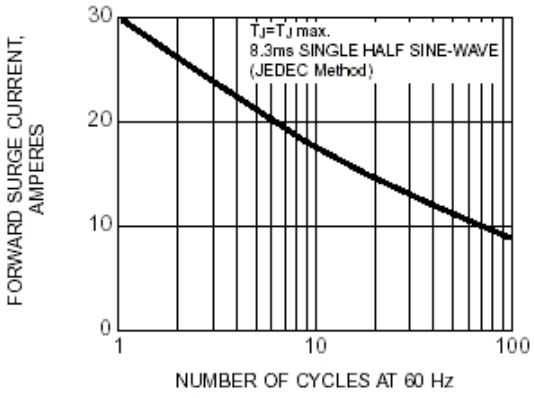



FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

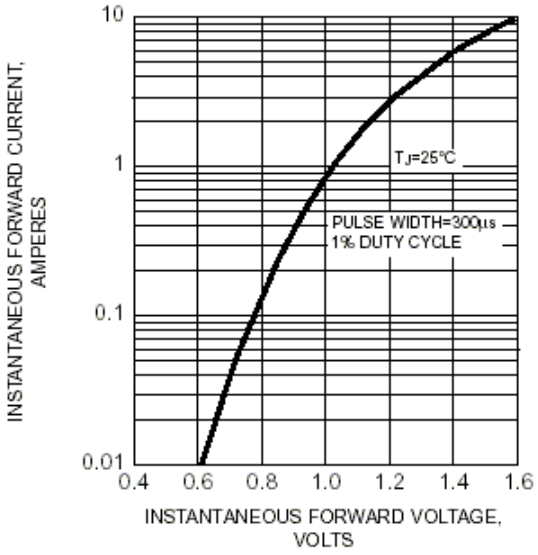



FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

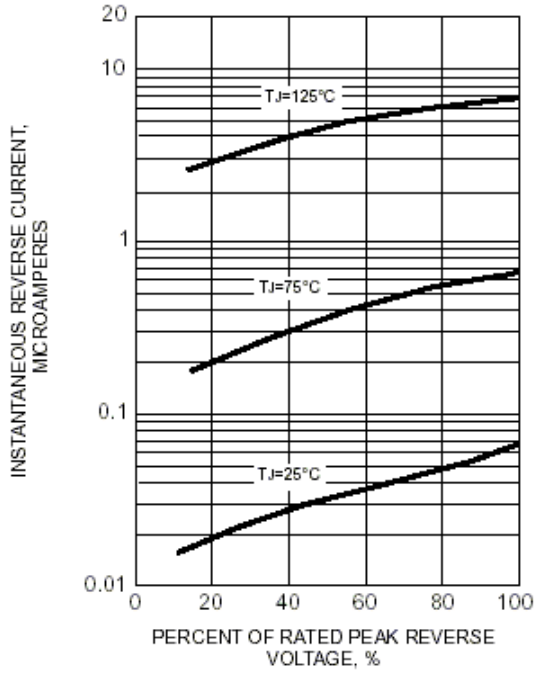



FIG. 5 - TYPICAL JUNCTION CAPACITANCE

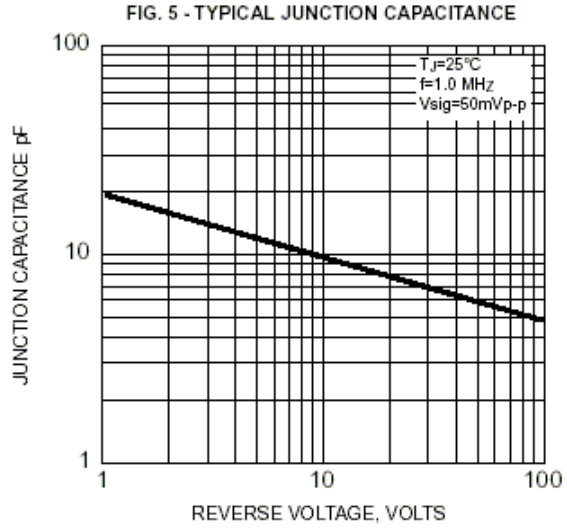
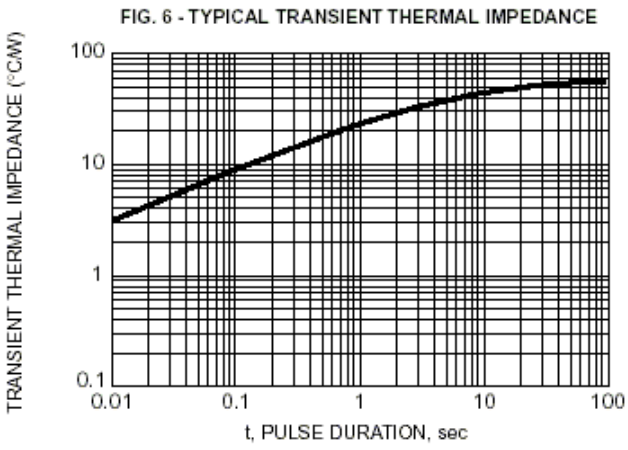



FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE




[1] Rev.A4, 1-Jul-03