

1N5391GP THRU 1N5399GP

SINTERED GLASS JUNCTION PLASTIC RECTIFIER

VOLTAGE:50 TO 1000V

CURRENT: 1.5A

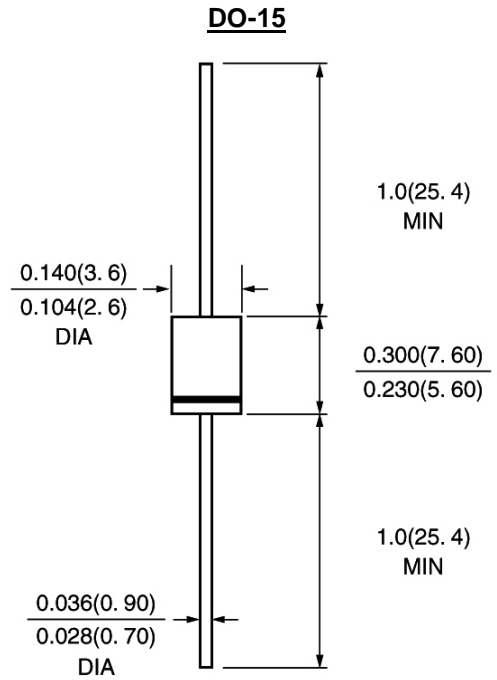


FEATURE

High temperature metallurgically bonded construction
Sintered glass cavity free junction
Capability of meeting environmental standard of MIL-S-19500
High temperature soldering guaranteed
350°C /10sec/0.375"lead length at 5 lbs tension
Operate at Ta =55°C with no thermal run away
Typical Ir<0.1μA

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



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 | 1N5391 GP | 1N5392 GP | 1N5393 GP | 1N5394 GP | 1N5395 GP | 1N5396 GP | 1N5397 GP | 1N5398 GP | 1N5399 GP | units |
|---|-----------------------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|
| * Maximum Recurrent Peak Reverse Voltage | V _{rrm} | 50 | 100 | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | v |
| * Maximum RMS Voltage | V _{rms} | 35 | 70 | 140 | 210 | 280 | 350 | 420 | 560 | 700 | v |
| * Maximum DC blocking Voltage | V _{dc} | 50 | 100 | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | v |
| * Maximum Average Forward Rectified Current 3/8"lead length at Ta =60°C | I _{f(av)} | 1.5 | | | | | | | | | A |
| * Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | I _{fsm} | 50.0 | | | | | | | | | A |
| * Maximum Instantaneous Forward Voltage at 1.5A | V _f | 1.4 | | | | | | | | | v |
| * Maximum full load reverse current full cycle Average at 70°C | I _{r(av)} | 300.0 | | | | | | | | | μA |
| * Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =150°C | I _r | 5.0 300.0 | | | | | | | | | μA μA |
| Typical Reverse Recovery Time (Note 1) | T _{rr} | 2.0 | | | | | | | | | μS |
| Typical Junction Capacitance (Note 2) | C _j | 15.0 | | | | | | | | | pF |
| Typical Thermal Resistance (Note 3) | R(ja) | 45.0 | | | | | | | | | °C/W |
| * Storage and Operating Junction Temperature | T _{stg} , T _j | -65 to +175 | | | | | | | | | °C |

Note:

- Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
 - Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
 - Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted
- * JEDEC Registered value

RATINGS AND CHARACTERISTIC CURVES 1N5391GP THRU 1N5399GP

FIG. 1 - FORWARD CURRENT DERATING CURVE

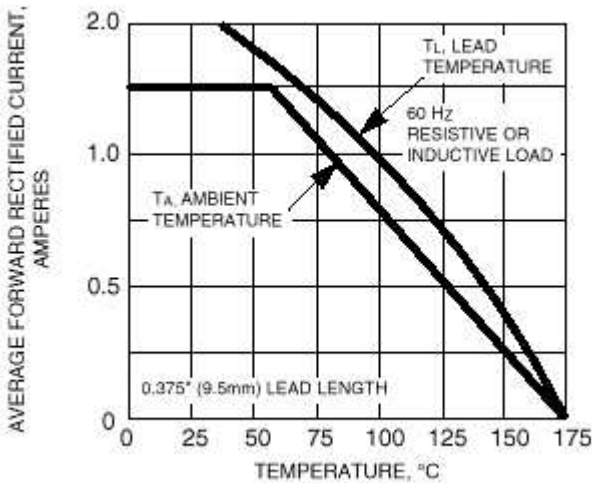


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

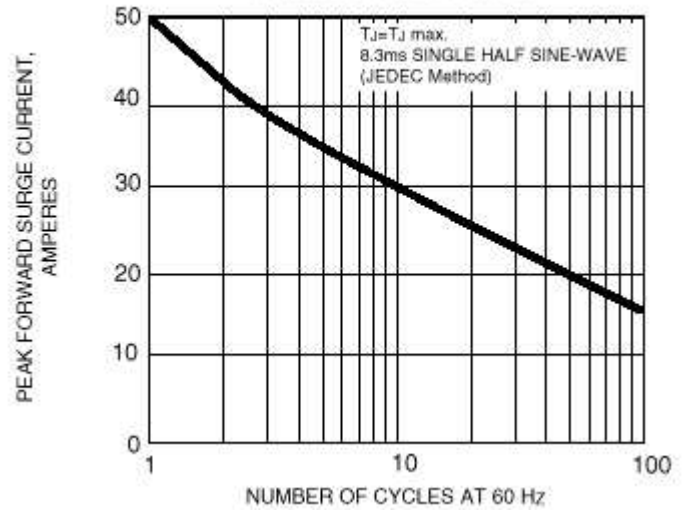


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

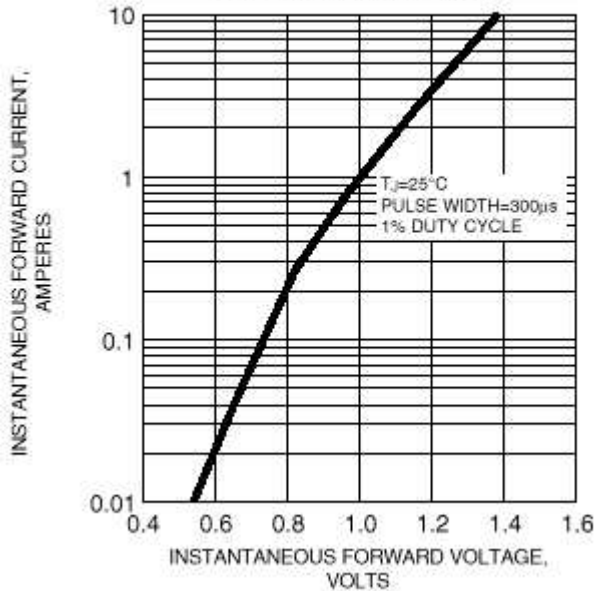


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

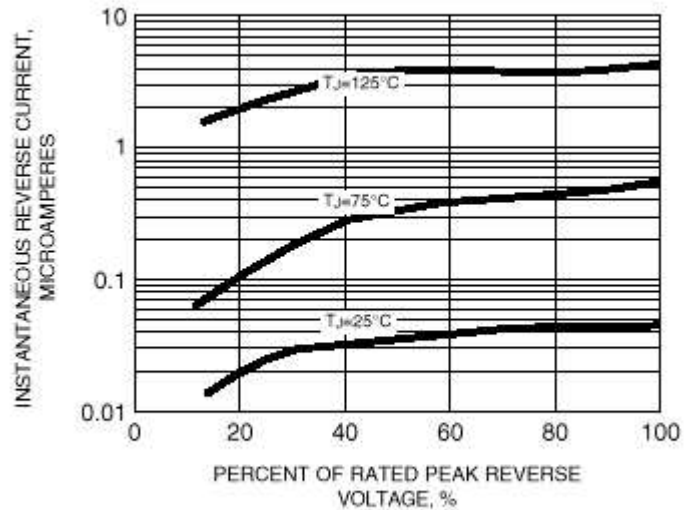


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

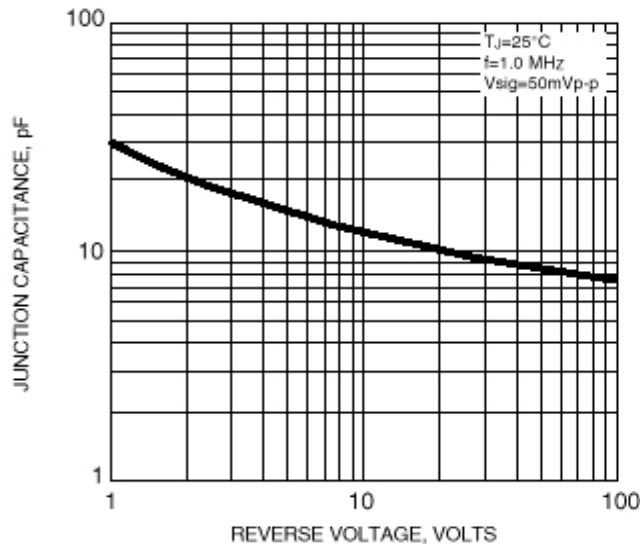


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

