

**Micro Commercial Components** 



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Phone: (818) 701-4933 Fax: (818) 701-4939 1N4933GP THRU 1N4937GP

### **Features**

- Halogen free available upon request by adding suffix "-HF"
- Glass Passivated Junction
- Low Leakage Current and Fast Switching
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)

## Maximum Ratings

- Operating Temperature: -55°C to + 150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 30 °C/W Junction To Lead

| MCC<br>Catalog<br>Number | Device<br>Marking | Maximum<br>Rœurrent<br>Peak<br>Reverse<br>Voltage | Maximum<br>RMS<br>Voltage | Maximum<br>DC<br>Blocking<br>Voltage |
|--------------------------|-------------------|---|---------------------------|--------------------------------------|
| 1N4933GP                 | 1N4933GP          | 50V   | 35V                       | 50V                                  |
| 1N4934GP                 | 1N4934GP          | 100V  | 70V                       | 100V                                 |
| 1N4935GP                 | 1N4935GP          | 200V  | 140V                      | 200V                                 |
| 1N4936GP                 | 1N4936GP          | 400V  | 280V                      | 400V                                 |
| 1N4937GP                 | 1N4937GP          | 600V  | 420V                      | 600V                                 |

#### Bectrical Characteristics @25°CUnless Otherwise Specified

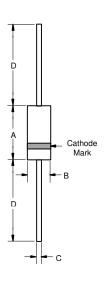
| Average Forward<br>Current                              | $I_{F(AV)}$      | 1.0A                   | T <sub>A</sub> =55°C  |
|---|------------------|------------------------|---|
| Peak Forward Surge<br>Current                           | I <sub>FSM</sub> | 30A                    | 8.3ms, half sine  |
| Maximum<br>Instantaneous<br>Forward Voltage             | V <sub>F</sub>   | 1.3V                   | I <sub>FM</sub> = 1.0A;<br>T <sub>J</sub> = 25°C*                   |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I <sub>R</sub>   | 5.0μΑ<br>50μΑ<br>100μΑ | $T_{J} = 25^{\circ}C$ $T_{J} = 100^{\circ}C$ $T_{J} = 125^{\circ}C$ |
| Maximum Reverse<br>Recovery Time                        | $T_{rr}$         | 200ns                  | I <sub>F</sub> =1.0A,<br>V <sub>R</sub> =30V                        |
| Typical Junction<br>Capacitance                         | СЈ               | 15pF                   | Measured at<br>1.0MHz,<br>V <sub>R</sub> =4.0V                      |

<sup>\*</sup>Pulse test: Pulse width 300 µsec, Duty cycle 1%

Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

# 1 Amp Glass Passivated Fast Recovery Rectifier 50 - 600 Volts

# DO-41



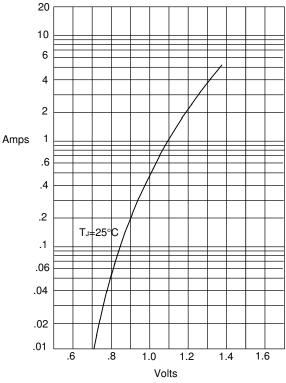
| DIMENSIONS |        |      |       |      |      |  |
|------------|--------|------|-------|------|------|--|
|            | INCHES |      | MM    |      |      |  |
| DIM        | MIN    | MAX  | MIN   | MAX  | NOTE |  |
| Α          | .166   | .205 | 4.10  | 5.20 |      |  |
| В          | .080   | .107 | 2.00  | 2.70 |      |  |
| O          | .028   | .034 | .70   | .90  |      |  |
| D          | 1.000  |      | 25.40 |      |      |  |

#### 1N4933GP thru 1N4937GP

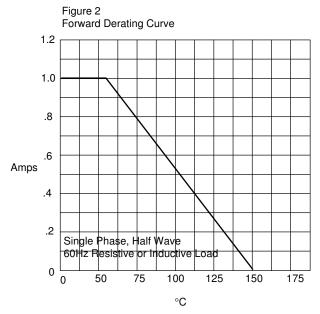
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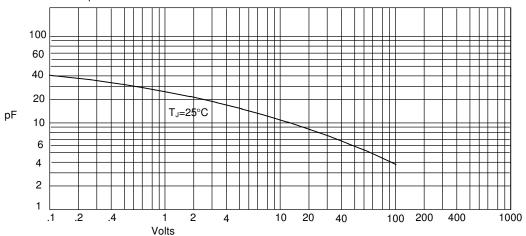


Instantaneous Forward Current - Amperes*versus* Instantaneous Forward Voltage - Volts



Average Forward Rectified Current - Amperes/ersus Ambient Temperature -°C



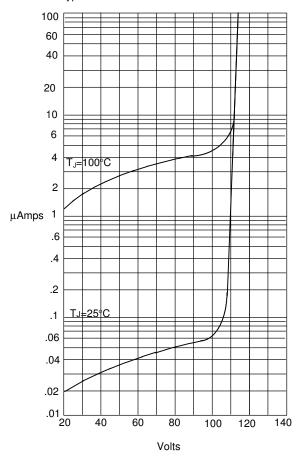


Junction Capacitance - pF*versus* Reverse Voltage - Volts

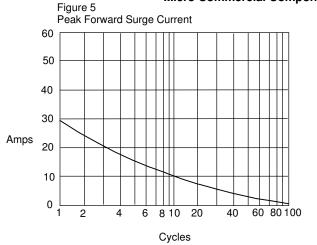
#### 1N4933GP thru 1N4937GP

·M·C·C·

Figure 4
Typical Reverse Characteristics



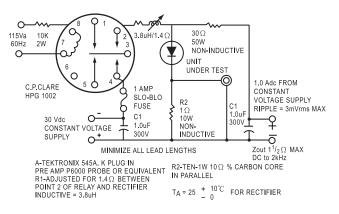
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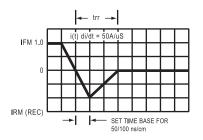


Peak Forward Surge Current - Amperesversus Number Of Cycles At 60Hz - Cycles

Instantaneous Reverse Leakage Current - MicroAmperesversus Percent Of Rated Peak Reverse Voltage - Volts

Figure 6
Reverse Recovery Time Characteristic And Test Circuit Diagram







#### **Ordering Information:**

| Device         | Packing                      |
|----------------|------------------------------|
| Part Number-TP | Tape&Reel: 5Kpcs/Reel        |
| Part Number-AP | Ammo Packing: 5Kpcs/Ammo Box |
| Part Number-BP | Bulk: 50Kpcs/Carton          |

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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