

1N4001GP
THRU
1N4007GP

Features

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

Maximum Ratings

- Operating Temperature: -55°C to +175°C
- Storage Temperature: -55°C to +175°C
- Maximum Thermal Resistance; 20°C/W Junction To Lead

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| 1N4001GP | 1N4001GP | 50V | 35V | 50V |
| 1N4002GP | 1N4002GP | 100V | 70V | 100V |
| 1N4003GP | 1N4003GP | 200V | 140V | 200V |
| 1N4004GP | 1N4004GP | 400V | 280V | 400V |
| 1N4005GP | 1N4005GP | 600V | 420V | 600V |
| 1N4006GP | 1N4006GP | 800V | 560V | 800V |
| 1N4007GP | 1N4007GP | 1000V | 700V | 1000V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

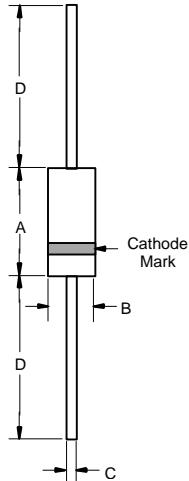
| | | | |
|---|-------------|-------------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 1.0A | $T_A = 75^\circ C$ |
| Peak Forward Surge Current | I_{FSM} | 30A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | V_F | 1.1V | $I_{FM} = 1.0A$; $T_J = 25^\circ C^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | $5.0\mu A$ $50\mu A$ | $T_J = 25^\circ C$ $T_J = 125^\circ C$ |
| Typical Junction Capacitance | C_J | 15pF | Measured at 1.0MHz, $V_R=4.0V$ |
| Typical Reverse Recovery Time | T_{rr} | 2.0 μs | $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$ |

*Pulse test: Pulse width 300 μ sec, Duty cycle 2%

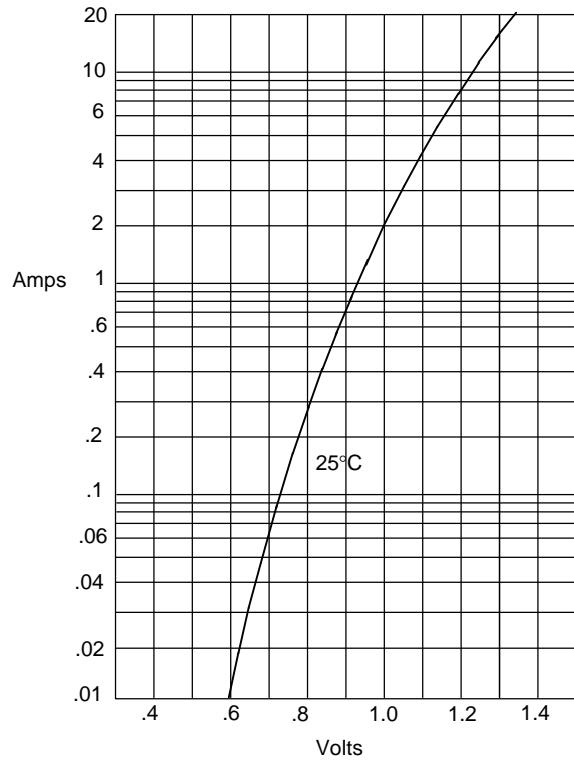
Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

1 Amp Glass Passivated Rectifier 50 - 1000 Volts

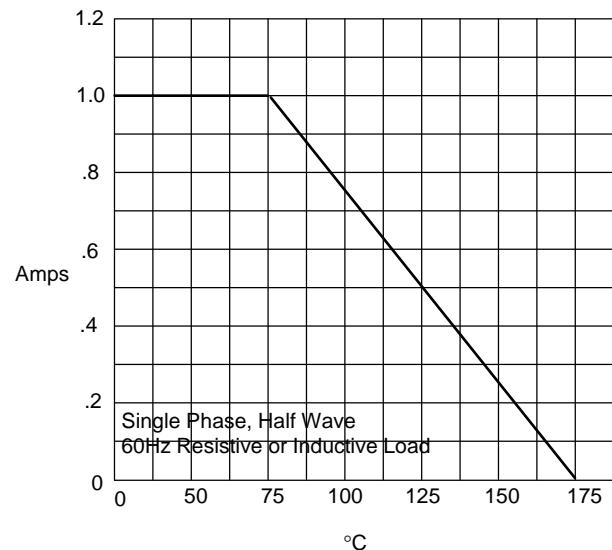
DO-41



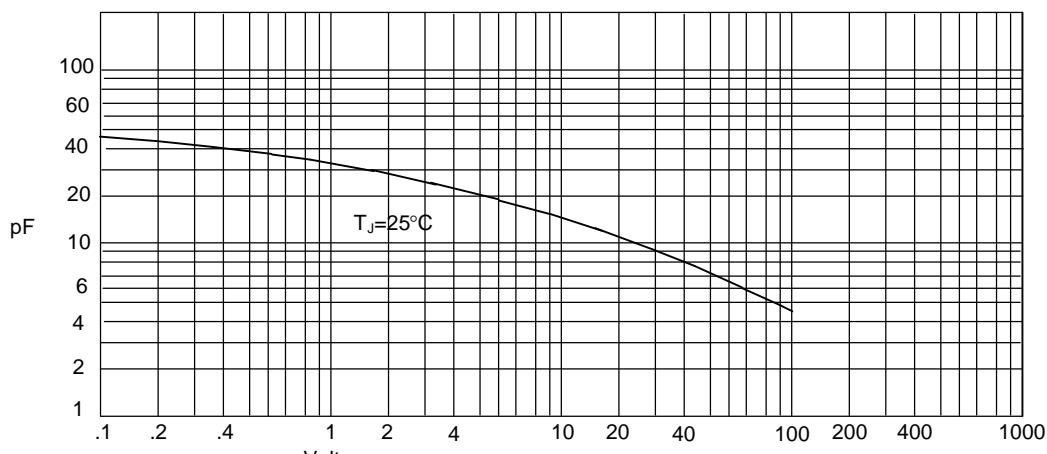
| DIMENSIONS | | | | | |
|------------|--------|------|-------|------|------|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | .166 | .205 | 4.10 | 5.20 | |
| B | .080 | .107 | 2.00 | 2.70 | |
| C | .028 | .034 | .70 | .90 | |
| D | 1.000 | --- | 25.40 | --- | |

Figure 1
Typical Forward Characteristics

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

Figure 2
Forward Derating Curve

Average Forward Rectified Current - Amperes *versus*
Ambient Temperature - °C

Figure 3
Junction Capacitance

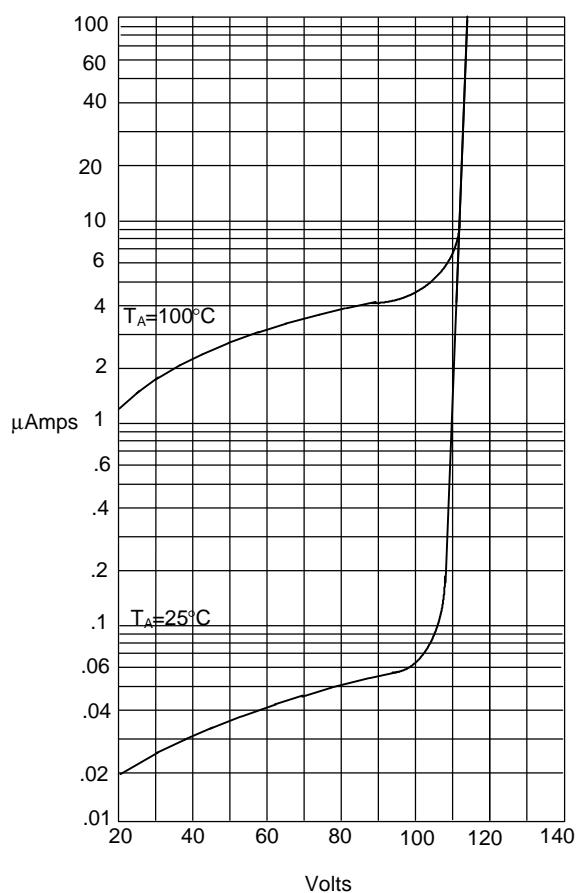
Junction Capacitance - pF *versus*
Reverse Voltage - Volts

1N4001GP thru 1N4007GP

•M•C•C•

TM

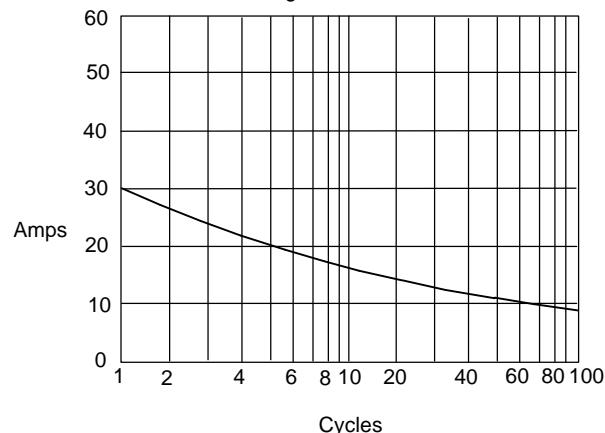
Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

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Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles

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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