Micro Commercial Components

Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

- 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


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- Operating Temperature: $-55^{\circ} \mathrm{C}$ to $+150^{\circ} \mathrm{C}$
- Storage Temperature: $-55^{\circ} \mathrm{C}$ to $+150^{\circ} \mathrm{C}$
- Maximum Thermal Resistance; $20^{\circ} \mathrm{C} / \mathrm{W}$ Junction To Lead

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



| Average Forward Current | $\mathrm{I}_{\text {F(AV) }}$ | 1.0A | $\mathrm{T}_{\mathrm{A}}=75^{\circ} \mathrm{C}$ |
| :---: | :---: | :---: | :---: |
| Peak Forward Surge Current | $\mathrm{I}_{\text {FSM }}$ | 30A | 8.3 ms , half sine |
| Maximum Instantaneous Forward Voltage | $\mathrm{V}_{\mathrm{F}}$ | 1.1V | $\begin{aligned} & \mathrm{I}_{\mathrm{FM}}=1.0 \mathrm{~A} ; \\ & \mathrm{T}_{\mathrm{J}}=25^{\circ} \mathrm{C}^{*} \\ & \hline \end{aligned}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_{\text {R }}$ | $\begin{aligned} & 5.0 \mu \mathrm{~A} \\ & 50 \mu \mathrm{~A} \end{aligned}$ | $\begin{aligned} & \mathrm{T}_{J}=25^{\circ} \mathrm{C} \\ & \mathrm{~T}_{J}=125^{\circ} \mathrm{C} \end{aligned}$ |
| Typical Junction Capacitance | CJ | 15pF | $\begin{aligned} & \hline \text { Measured at } \\ & 1.0 \mathrm{MHz}, \mathrm{~V}_{\mathrm{R}}=4.0 \mathrm{~V} \\ & \hline \end{aligned}$ |
| Maximum Reverse Recovery Time | $\mathrm{T}_{\text {rr }}$ | 2.0us | $\begin{aligned} & \mathrm{I}_{\mathrm{F}}=0.5 \mathrm{~A}, \mathrm{I}_{\mathrm{R}}=1.0 \mathrm{~A}, \\ & \mathrm{I}_{\mathrm{rr}}=0.25 \mathrm{~A} \end{aligned}$ |

*Pulse test: Pulse width $300 \mu \mathrm{sec}$, Duty cycle 2\%
Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

1N4001GP THRU 1N4007GP

## 1 Amp Glass PassivatedRectifier 50-1000 Volts



| 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 | --- |  |

## 1N4001GP thru 1N4007GP

Figure 1
Typical Forward Characteristics


Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve


Average Forward Rectified Current - Amperesversus Ambient Temperature - ${ }^{\circ} \mathrm{C}$

Figure 3
Junction Capacitance


## 1N4001GP thru 1N4007GP

Figure 4
Typical Reverse Characteristics


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

Figure 5
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Peak Forward Surge Current


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


