



Micro Commercial Components



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**1N5820  
THRU  
1N5822**

## Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Low Forward Voltage Drop and High Current Capability
- High Surge Current Capability
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

## Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +125°C
- Maximum Thermal Resistance; 28°C/W Junction To Ambient

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|----------------------------------------|---------------------|-----------------------------|
| 1N5820             | 1N5820         | 20V                                    | 14V                 | 20V                         |
| 1N5821             | 1N5821         | 30V                                    | 21V                 | 30V                         |
| 1N5822             | 1N5822         | 40V                                    | 28V                 | 40V                         |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

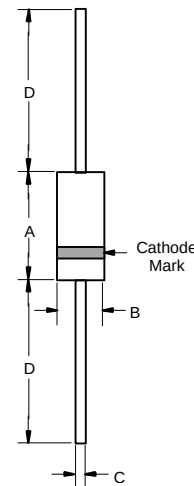
|                                                         |             |                                              |                                                        |
|---------------------------------------------------------|-------------|----------------------------------------------|--------------------------------------------------------|
| Average Forward Current                                 | $I_{F(AV)}$ | 3.0A                                         | $T_A = 85^\circ\text{C}$                               |
| Peak Forward Surge Current                              | $I_{FSM}$   | 80A                                          | 8.3ms, half sine                                       |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | 1N5820 .475V<br>1N5821 .500V<br>1N5822 .525V | $I_{FM} = 3.0A$ ;<br>$T_J = 25^\circ\text{C}$ (Note 2) |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 0.5mA<br>20mA                                | $T_J = 25^\circ\text{C}$<br>$T_J = 100^\circ\text{C}$  |
| Typical Junction Capacitance                            | $C_J$       | 200pF                                        | Measured at 1.0MHz, $V_R=4.0V$                         |

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

2.Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 1%

**3 Amp Schottky  
Barrier Rectifier  
20 - 40 Volts**

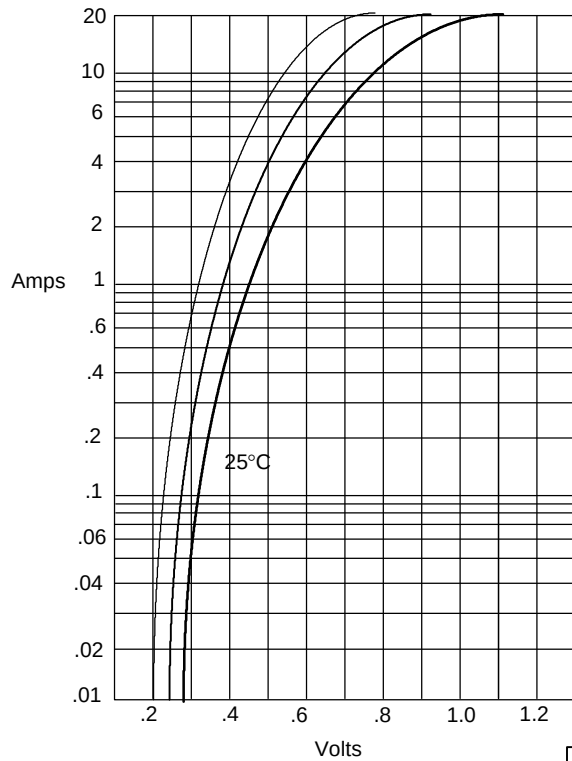
**DO-201AD**



| DIM | INCHES |      | MM    |      | NOTE |
|-----|--------|------|-------|------|------|
|     | MIN    | MAX  | MIN   | MAX  |      |
| A   | .287   | .374 | 7.30  | 9.50 |      |
| B   | .189   | .208 | 4.80  | 5.30 |      |
| C   | .048   | .052 | 1.20  | 1.30 |      |
| D   | 1.000  | ---  | 25.40 | ---  |      |

# 1N5820 thru 1N5822

Figure 1  
Typical Forward Characteristics



Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

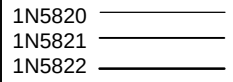
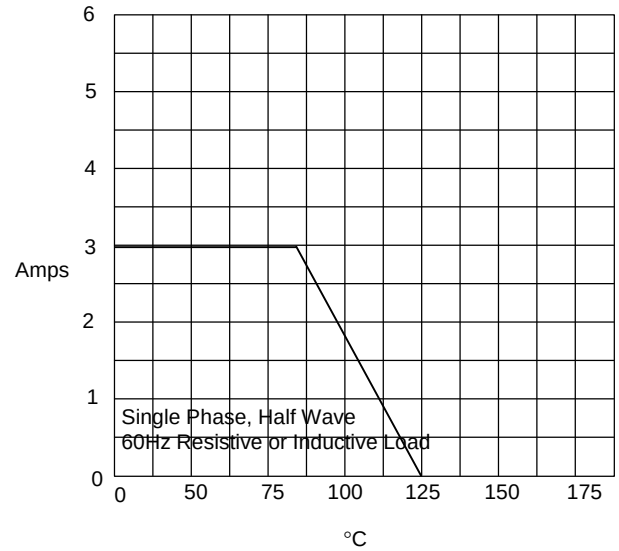
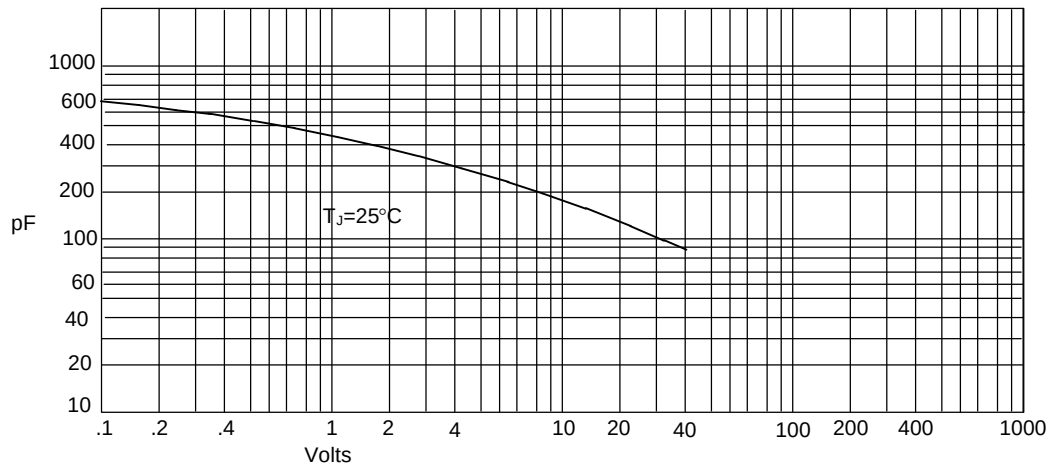


Figure 2  
Forward Derating Curve

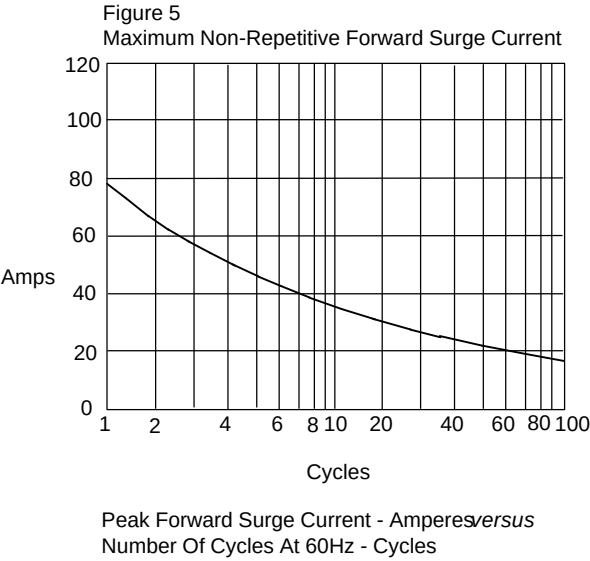
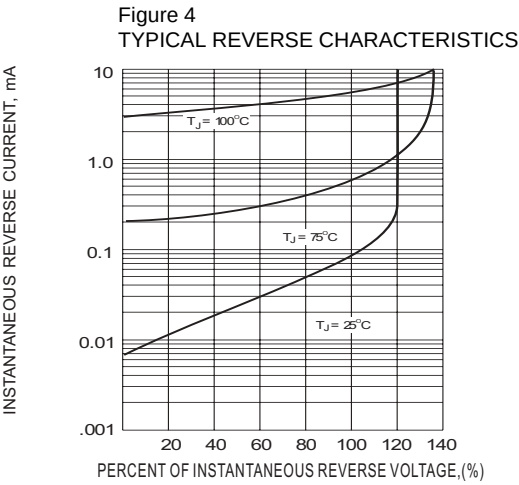


Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



Junction Capacitance - pF versus  
Reverse Voltage - Volts





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## Ordering Information :

| Device         | Packing                        |
|----------------|--------------------------------|
| Part Number-TP | Tape&Reel: 1.2Kpcs/Reel        |
| Part Number-AP | Ammo Packing: 1.2Kpcs/Ammo Box |
| Part Number-BP | Bulk: 12Kpcs/Carton            |

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

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Электрон  
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