

# 1N4001G - 1N4007G BY133G

## GLASS PASSIVATED JUNCTION SILICON RECTIFIERS

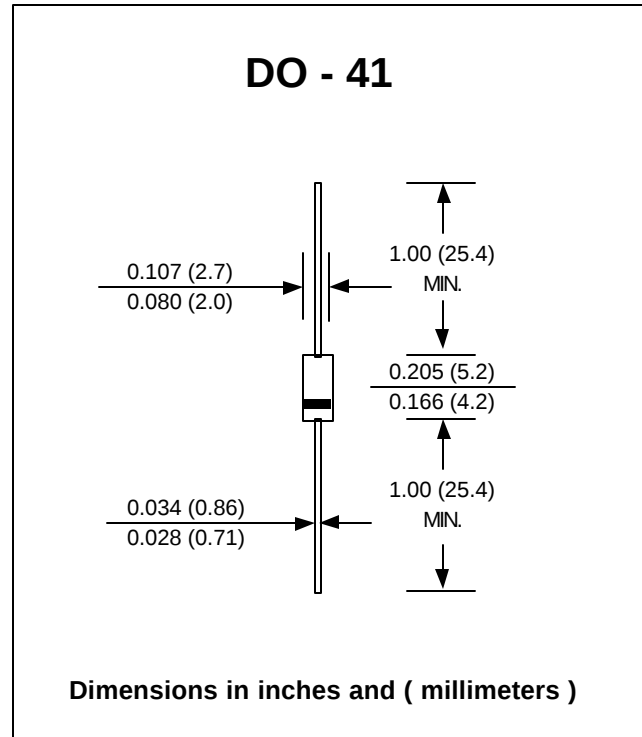
**PRV : 50 - 1000 Volts**  
**Io : 1.0 Ampere**

### FEATURES :

- \* Glass passivated chip
- \* High current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop

### MECHANICAL DATA :

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.339 gram



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| RATING                                                                                                 | SYMBOL          | 1N<br>4001G   | 1N<br>4002G | 1N<br>4003G | 1N<br>4004G | 1N<br>4005G | 1N<br>4006G | 1N<br>4007G | BY<br>133G | UNIT         |
|--------------------------------------------------------------------------------------------------------|-----------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|--------------|
| Maximum Repetitive Peak Reverse Voltage                                                                | $V_{RRM}$       | 50            | 100         | 200         | 400         | 600         | 800         | 1000        | 1300       | Volts        |
| Maximum RMS Voltage                                                                                    | $V_{RMS}$       | 35            | 70          | 140         | 280         | 420         | 560         | 700         | 910        | Volts        |
| Maximum DC Blocking Voltage                                                                            | $V_{DC}$        | 50            | 100         | 200         | 400         | 600         | 800         | 1000        | 1300       | Volts        |
| Maximum Average Forward Current<br>0.375"(9.5mm) Lead Length $T_a = 75^\circ C$                        | $I_{F(AV)}$     | 1.0           |             |             |             |             |             |             |            | Amp.         |
| Peak Forward Surge Current<br>8.3ms Single half sine wave Superimposed<br>on rated load (JEDEC Method) | $I_{FSM}$       | 30            |             |             |             |             |             |             |            | Amps.        |
| Maximum Forward Voltage at $I_F = 1.0$ Amp.                                                            | $V_F$           | 1.0           |             |             |             |             |             |             |            | Volts        |
| Maximum DC Reverse Current $T_a = 25^\circ C$                                                          | $I_R$           | 5.0           |             |             |             |             |             |             |            | $\mu A$      |
| at rated DC Blocking Voltage $T_a = 100^\circ C$                                                       | $I_{R(H)}$      | 50            |             |             |             |             |             |             |            | $\mu A$      |
| Typical Junction Capacitance (Note1)                                                                   | $C_J$           | 8             |             |             |             |             |             |             |            | pF           |
| Typical Thermal Resistance (Note2)                                                                     | $R_{\theta JA}$ | 45            |             |             |             |             |             |             |            | $^\circ C/W$ |
| Junction Temperature Range                                                                             | $T_J$           | - 65 to + 175 |             |             |             |             |             |             |            | $^\circ C$   |
| Storage Temperature Range                                                                              | $T_{STG}$       | - 65 to + 175 |             |             |             |             |             |             |            | $^\circ C$   |

**Notes :** (1) Measured at 1.0 MHz and applied reverse voltage of 4.0VDC  
(2) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

**UPDATE : MAY 27. 1998**

## RATING AND CHARACTERISTIC CURVES ( 1N4001G - BY133G )

