



1N4001 Thru 1N4007

1 AMP PLASTIC SILICON RECTIFIER

FEATURES

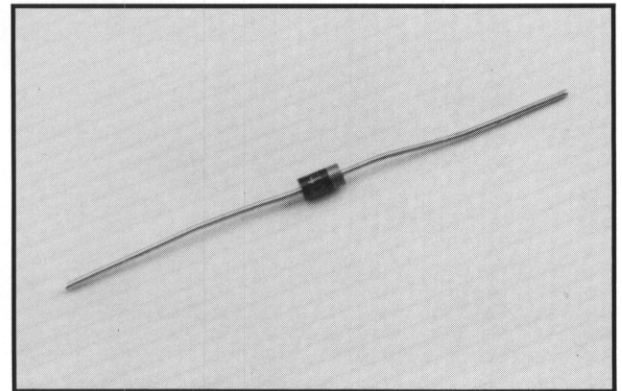
- Rating to 1000V PRV
- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with freon, alcohol, chlorothene and similar solvents
- UL recognized 94V-O plastic material

Mechanical Data

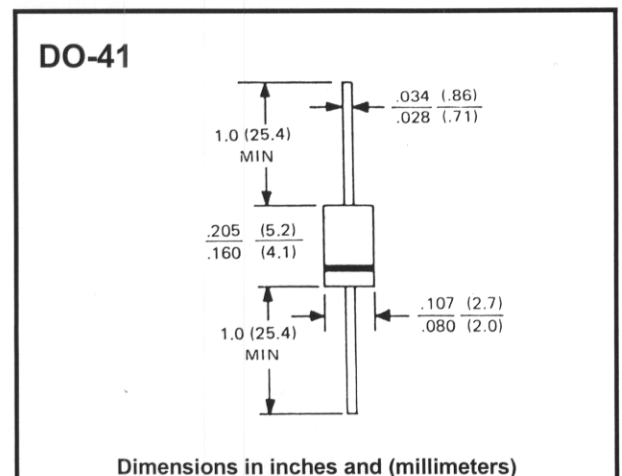
- Case: JEDEC DO-41
- Terminals: Axial leads, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Weight: 0.012 ounce, 0.3 grams
- Mounting Position: Any

Maximum Ratings & Characteristics

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



Outline Drawing



| | | 1N4001 | 1N4002 | 1N4003 | 1N4004 | 1N4005 | 1N4006 | 1N4007 | Units |
|-------------------------------------------------------------------------------------------------------|------------|-------------|--------|--------|--------|--------|--------|--------|--------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current .375 (9.5mm) Lead Lengths @ $T_A = 75^\circ C$ | $I_{(AV)}$ | 1.0 | | | | | | | A |
| Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave Superimposed On Rated Load | I_{FSM} | 40 | | | | | | | A |
| Maximum Forward Voltage At 1.0A DC | V_F | 1.0 | | | | | | | V |
| Maximum DC Reverse Current @ $T_A = 25^\circ C$ At Rated DC Blocking Voltage @ $T_A = 100^\circ C$ | I_R | 5 50 | | | | | | | μA |
| Typical Junction Capacitance (Note 1) $T_A = 25^\circ C$ | C_J | 15 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | R_{thJA} | 26 | | | | | | | $^\circ C/W$ |
| Operating 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 4.0V DC