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## 1N4001 thru 1N4007 1.0A Standard Recovery Rectifier

**Features:**

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- RoHS Compliant

**Mechanical Data:**

- Case: DO-41, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.35 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

**Absolute Maximum Ratings and Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$ , unless otherwise specified)

Peak Repetitive Voltage,  $V_{RRM}$

Working Peak Reverse Voltage,  $V_{RWM}$

DC Blocking Voltage,  $V_R$

1N4001	50V
1N4002	100V
1N4003	200V
1N4004	400V
1N4005	600V
1N4006	800V
1N4007	1000V

RMS Reverse Voltage,  $V_{R(RMS)}$

1N4001	35V
1N4002	70V
1N4003	140V
1N4004	280V
1N4005	420V
1N4006	560V
1N4007	700V

Average Rectified Output Current ( $T_A = +75^\circ\text{C}$ , Note 1),  $I_O$  . . . . . 1.0A

Non-Repetitive Peak Forward Surge Current,  $I_{FSM}$   
 (8.3ms Single half sine-wave superimposed on rated load, JEDEC Method) . . . . . 30A

Forward Voltage ( $I_F = 1.0A$ ),  $V_{FM}$  . . . . . 1.0V

Peak Reverse Current ( $T_A = +25^\circ\text{C}$ ),  $I_{RM}$  . . . . . 5.0 $\mu$ A

At Rated DC Blocking Voltage ( $T_A = +100^\circ\text{C}$ ) . . . . . 50 $\mu$ A

Typical Junction Capacitance (Note 2),  $C_j$  . . . . . 15pF

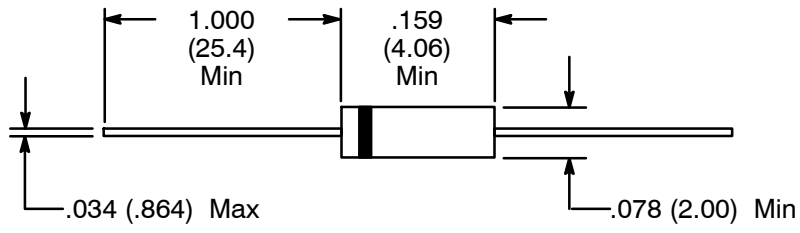
Typical Thermal Resistance, Junction-to-Ambient,  $R_{thJA}$  . . . . . 50 $^\circ\text{C}/\text{W}$

Operating Temperature Range,  $T_j$  . . . . .  $-65^\circ$  to  $+125^\circ\text{C}$

Storage Temperature Range,  $T_{STG}$  . . . . .  $-65^\circ$  to  $+150^\circ\text{C}$

Note 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case

Note 2. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V D.C.



Color Band Denotes Cathode

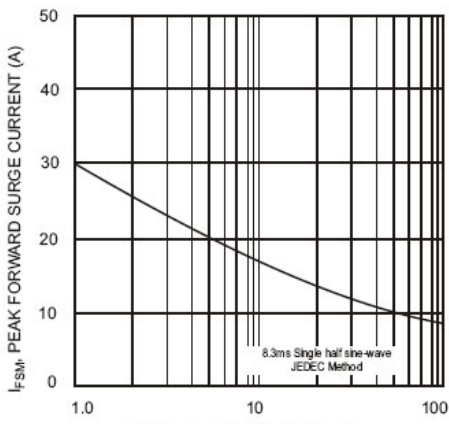


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

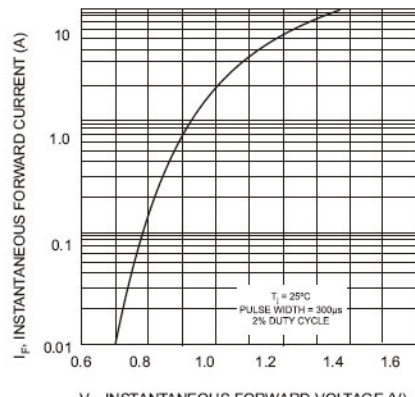


Fig. 2 Typical Forward Characteristics

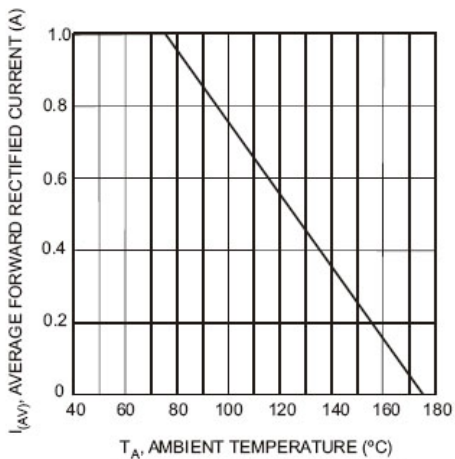


Fig. 1 Forward Current Derating Curve

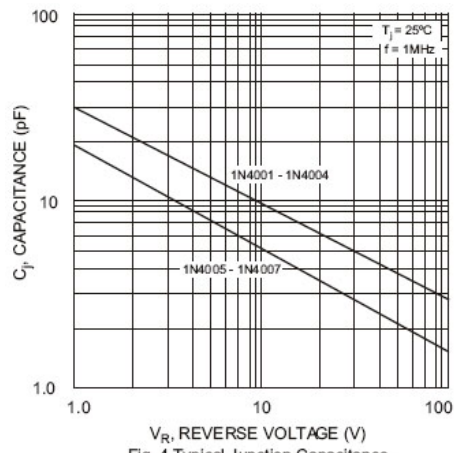



Fig. 4 Typical Junction Capacitance

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