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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 ($I_F = 1.0\text{A}$), V_{FM} 1.0V

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

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

Typical Junction Capacitance (Note 2), C_j 15pF

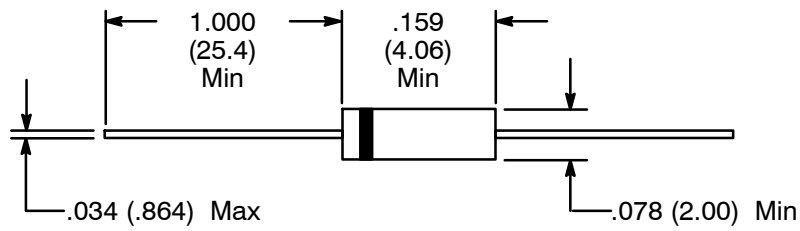
Typical Thermal Resistance, Junction-to-Ambient, R_{thJA} 50 $^{\circ}\text{C/W}$

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

Storage Temperature Range, T_{STG} -65° 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

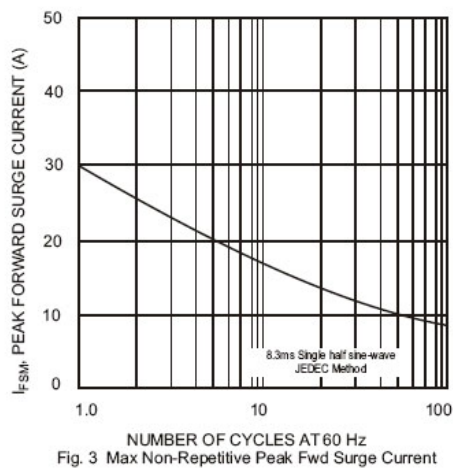


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

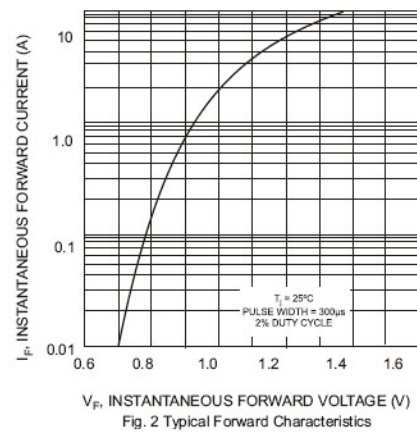


Fig. 2 Typical Forward Characteristics

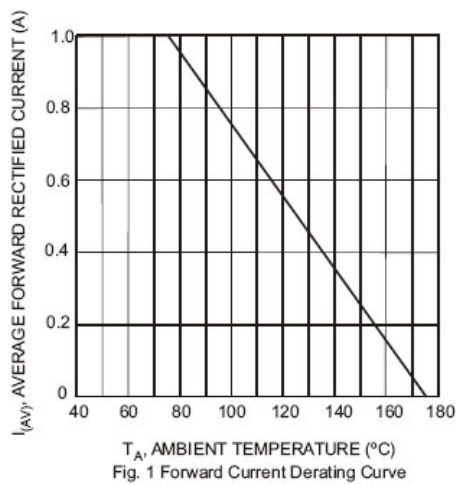


Fig. 1 Forward Current Derating Curve

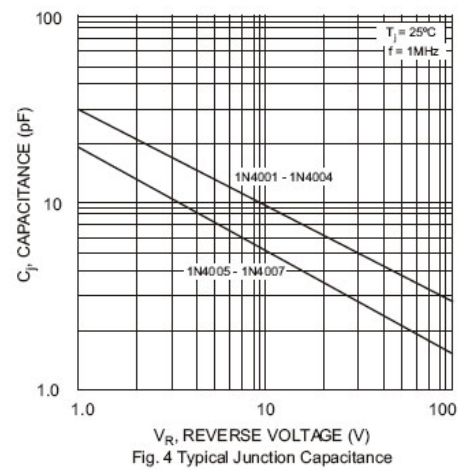


Fig. 4 Typical Junction Capacitance