ELECTRONICS, INC.
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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°C, unless otherwise specified)

Peak Repetitive Voltage, V_{RRM}
Working Peak Reverse Voltage, V_{RWM}
DC Blocking Voltage, V_R

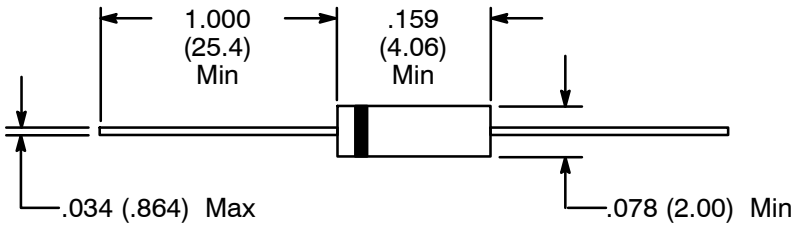
1N4001	50V
1N4002	100V
1N4003	200V
1N4004	400V
1N4005	600V
1N4006	800V
1N4007	1000V

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

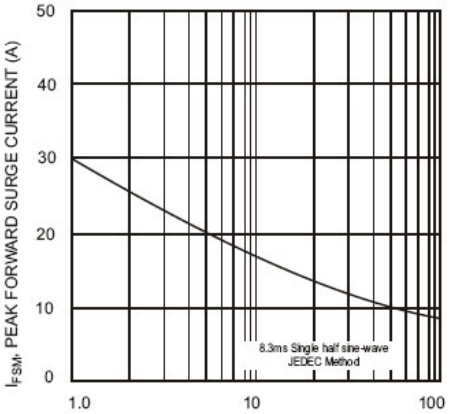
1N4001	35V
1N4002	70V
1N4003	140V
1N4004	280V
1N4005	420V
1N4006	560V
1N4007	700V

Average Rectified Output Current (T_A = +75°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°C), I_{RM} 5.0μA
At Rated DC Blocking Voltage (T_A = +100°C) 50μA
Typical Junction Capacitance (Note 2), C_j 15pF
Typical Thermal Resistance, Junction–to–Ambient, R_{thJA} . . . . . 50°C/W
Operating Temperature Range, T_j . . . . . –65° to +125°C
Storage Temperature Range, T_{STG} . . . . . –65° to +150°C

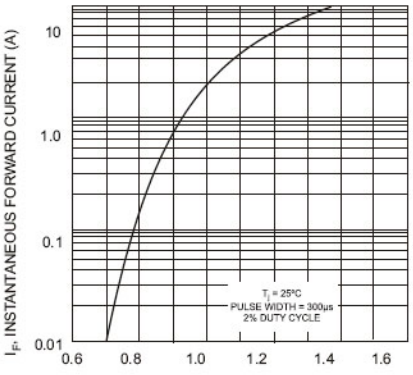
Note 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case
Note 2. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V D.C.



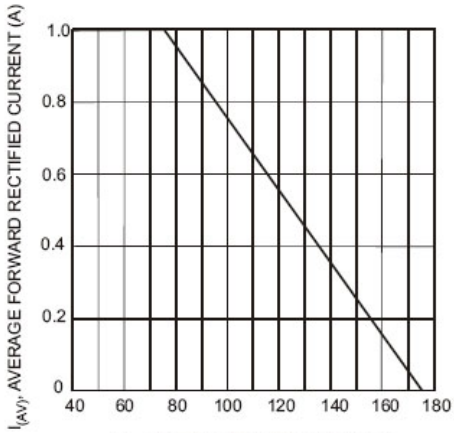
Color Band Denotes Cathode



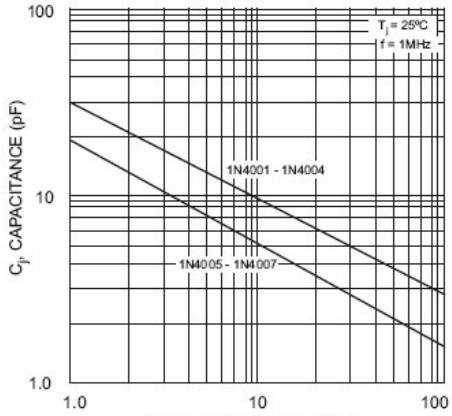
NUMBER OF CYCLES AT 60 Hz
Fig. 3 Max Non-Repetitive Peak Fwd Surge Current



V_F, INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



T_A, AMBIENT TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



V_R, REVERSE VOLTAGE (V)
Fig. 4 Typical Junction Capacitance