

# 1N4001 THRU 1N4007

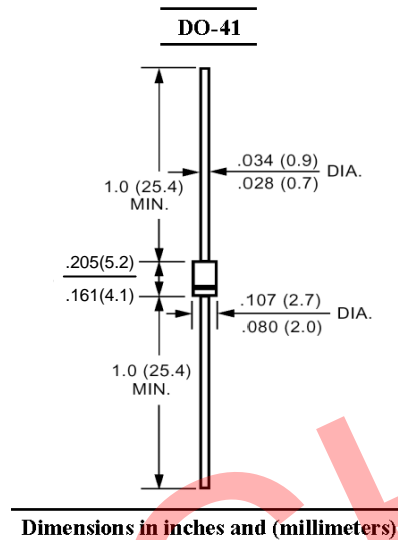
**General Purpose Plastic Silicon Rectifier**  
**Reverse Voltage - 50 to 1000 V**  
**Forward Current - 1 A**

## Features

- Low forward voltage drop
- High current capability
- High surge current capability

## Mechanical Data

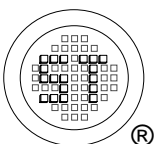
- Case: Molded plastic, DO-41
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Axial leads, solderable per MIL-STD-202 method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any



## Absolute Maximum Ratings and Characteristics

Ratings 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%.

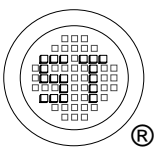
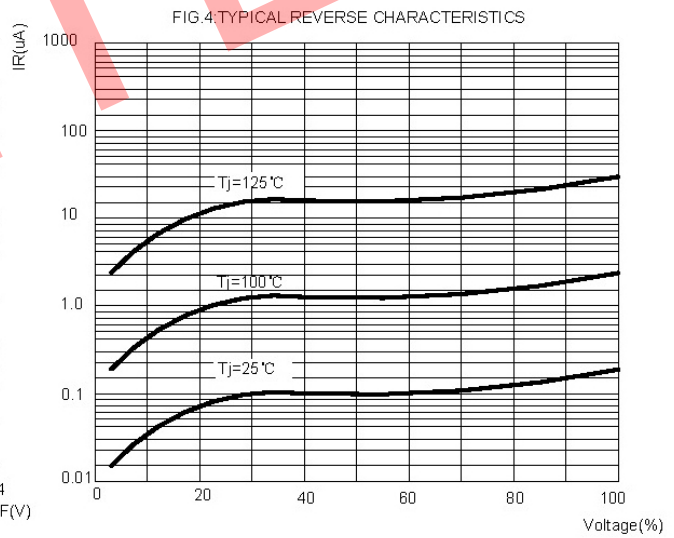
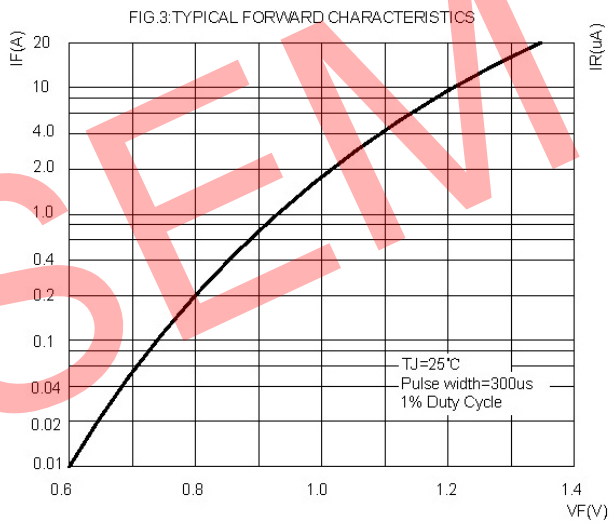
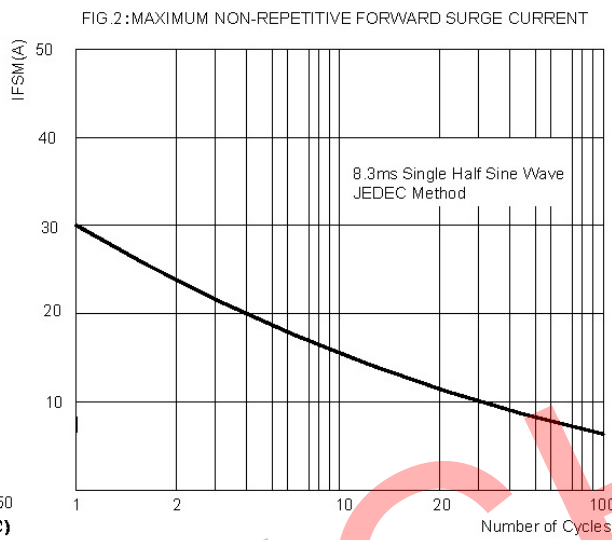
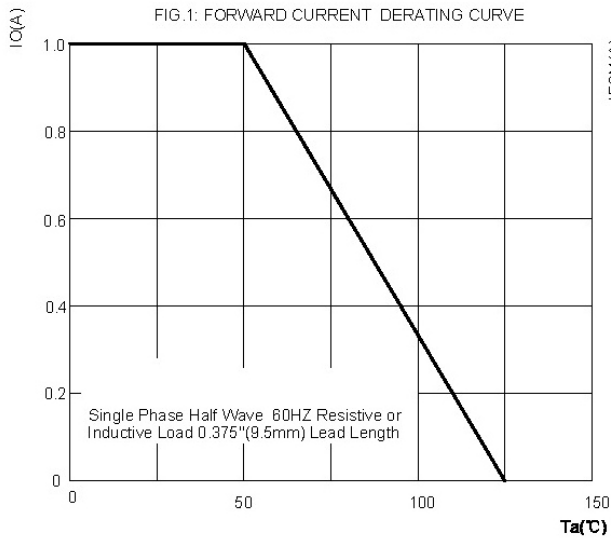
Parameter	Symbols	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at $T_A = 75^\circ\text{C}$	$I_{(AV)}$	1							A
Peak Forward Surge Current, 8.3 ms Single Half-sine-wave Superimposed on rated load (JEDEC method)	$I_{FSM}$	30							A
Maximum Forward Voltage at 1 A DC and 25°C	$V_F$	1.1							V
Maximum Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 125^\circ\text{C}$	$I_R$	5 50							$\mu\text{A}$
Typical Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	55							$^\circ\text{C/W}$
Typical Thermal Resistance, Junction to Lead	$R_{\theta JL}$	25							$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	- 55 to + 125							$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150							$^\circ\text{C}$



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