

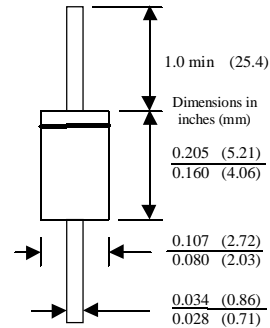
# 1N4001 - 1N4007

## Features

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



**DO-41**  
COLOR BAND DENOTES CATHODE



## 1.0 Ampere General Purpose Rectifiers

### Absolute Maximum Ratings\* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
I <sub>O</sub>	Average Rectified Current .375" lead length @ T <sub>A</sub> = 75°C	1.0	A
i <sub>f(surge)</sub>	Peak Forward Surge Current 8.3 ms single half-sine-wave Superimposed on rated load (JEDEC method)	30	A
P <sub>D</sub>	Total Device Dissipation Derate above 25°C	2.5 20	W mW/°C
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient	50	°C/W
T <sub>stg</sub>	Storage Temperature Range	-55 to +175	°C
T <sub>J</sub>	Operating Junction Temperature	-55 to +150	°C

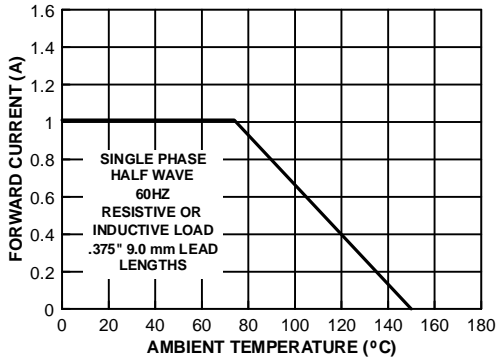
\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise noted

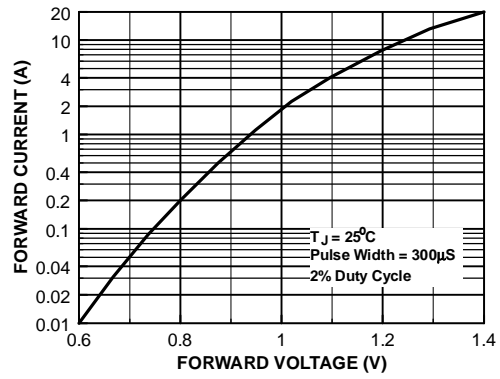
Parameter	Device							Units
	4001	4002	4003	4004	4005	4006	4007	
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated V <sub>R</sub> )	50	100	200	400	600	800	1000	V
Maximum Reverse Current @ rated V <sub>R</sub> T <sub>A</sub> = 25°C	5.0							μA
	500							μA
Maximum Forward Voltage @ 1.0 A	1.1							V
Maximum Full Load Reverse Current, Full Cycle T <sub>A</sub> = 75°C	30							μA
Typical Junction Capacitance V <sub>R</sub> = 4.0 V, f = 1.0 MHz	15							pF

Typical Characteristics

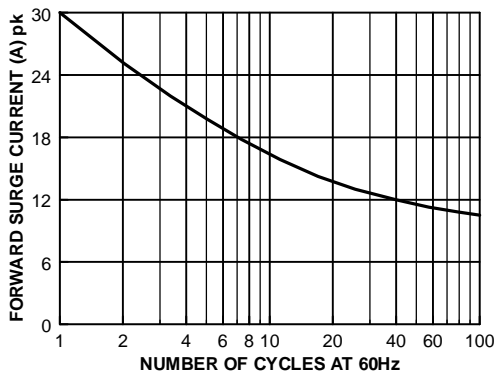
Forward Current Derating Curve



Forward Characteristics



Non-Repetitive Surge Current



Reverse Characteristics

