

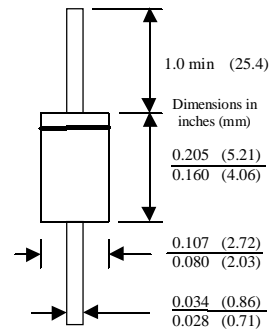
# 1N4001GP - 1N4007GP

## Features

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



**DO-41**  
COLOR BAND DENOTES CATHODE



## 1.0 Ampere Glass Passivated 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	3.0 20	W mW/°C
R <sub>θJA</sub>	Thermal Resistance, Junction to ambient	50	°C/W
T <sub>stg</sub>	Storage Temperature Range	-65 to +175	°C
T <sub>J</sub>	Operating Junction Temperature	-65 to +175	°C

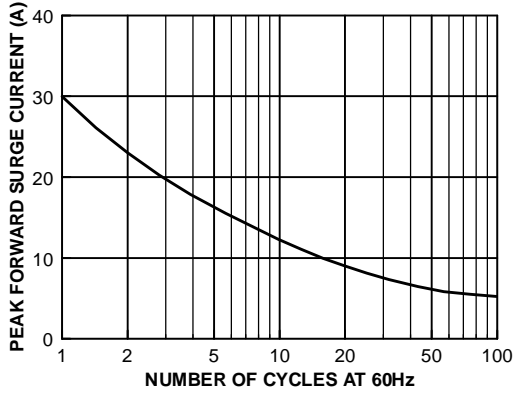
\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

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

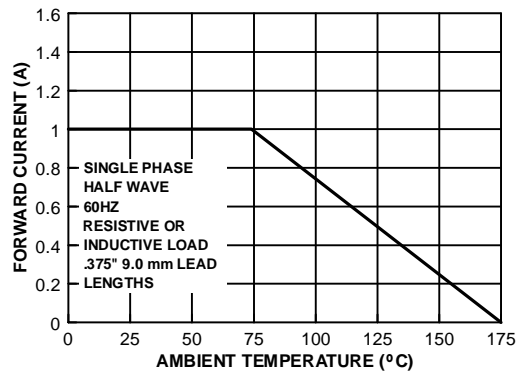
Parameter	Device							Units
	4001GP	4002GP	4003GP	4004GP	4005GP	4006GP	4007GP	
Peak Repetitive Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
DC Reverse Voltage (Rated V <sub>R</sub> )	50	100	200	400	600	800	1000	V
Maximum Reverse Current @ rated V <sub>R</sub> T <sub>A</sub> = 25°C	5.0							μA
	50							μA
Maximum Forward Voltage @ 1.0 A	1.1							V
Typical Junction Capacitance V <sub>R</sub> = 4.0 V, f = 1.0 MHz	8.0							pF

Typical Characteristics

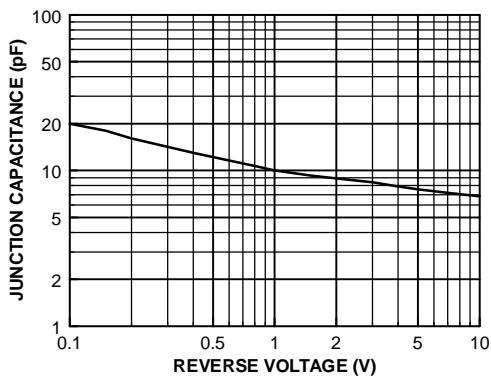
Non-Repetitive Surge Current



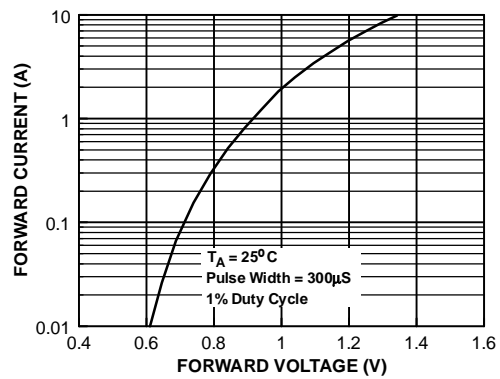
Forward Current Derating Curve



Typical Junction Capacitance



Forward Characteristics



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E <sup>2</sup> CMOS™	PowerTrench™
FACT™	QS™
FACT Quiet Series™	Quiet Series™
FAST®	SuperSOT™-3
FASTr™	SuperSOT™-6
GTO™	SuperSOT™-8
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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