·M·C·C·

Micro Commercial Components
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**1N4001GP
THRU
1N4007GP**

**1 Amp Glass
PassivatedRectifier
50 - 1000 Volts**

Features

- Glass Passivated Junction
- Low Current Leakage
- Metalurgically Bonded Construction
- Low Cost

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 20°C/W Junction To Lead

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
1N4001GP	---	50V	35V	50V
1N4002GP	---	100V	70V	100V
1N4003GP	---	200V	140V	200V
1N4004GP	---	400V	280V	400V
1N4005GP	---	600V	420V	600V
1N4006GP	---	800V	560V	800V
1N4007GP	---	1000V	700V	1000V

DO-41

Cathode Mark
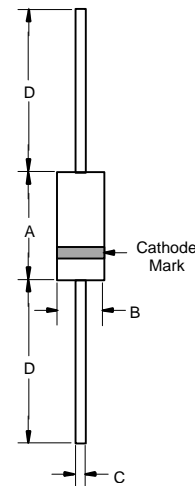
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_A = 75°C$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.1V	$I_{FM} = 1.0A$; $T_J = 25°C*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0µA 50µA	$T_J = 25°C$ $T_J = 125°C$
Typical Junction Capacitance	C_J	15pF	Measured at 1.0MHz, $V_R=4.0V$

*Pulse test: Pulse width 300 µsec, Duty cycle 2%

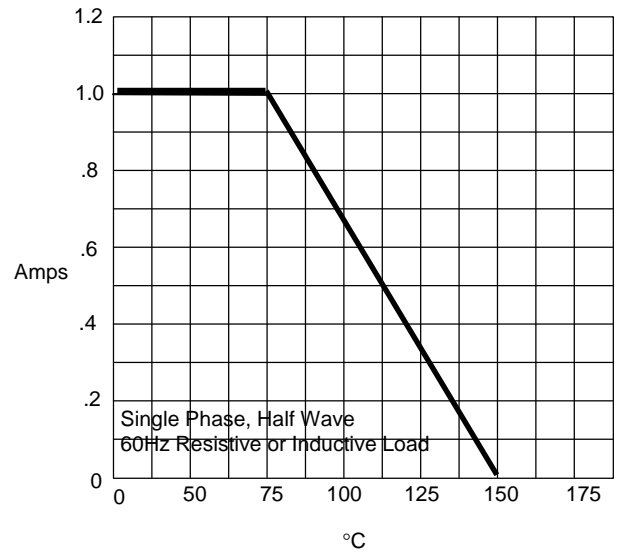|	DIMENSIONS				
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.166	.205	4.10	5.20	
B	.080	.107	2.00	2.70	
C	.028	.034	.70	.90	
D	1.000	---	25.40	---	

1N4001GP thru 1N4007GP

Figure 1
Typical Forward Characteristics

Amps

20
10
6
4
2
1
.6
.4
.2
.1
.06
.04
.02
.01

25°C

.4   .6   .8   1.0   1.2   1.4
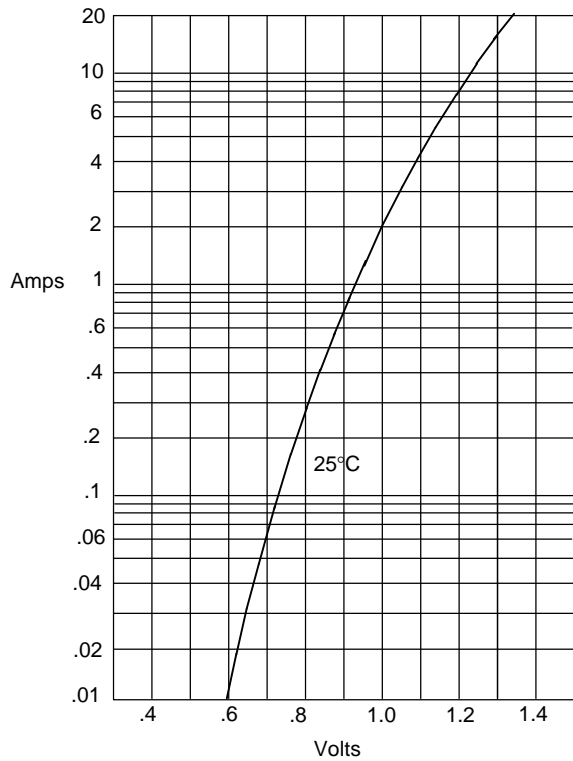
Volts

Instantaneous Forward Current - Amperes *versus*
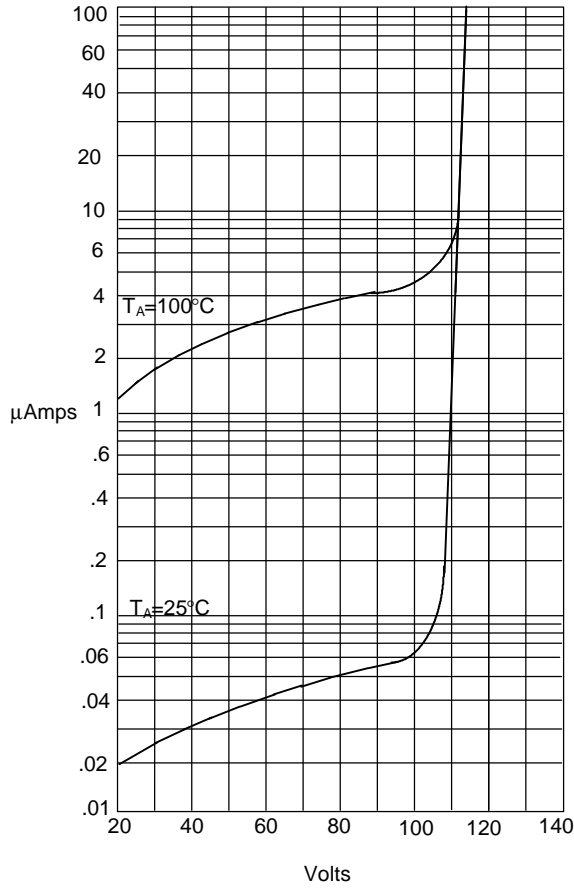Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve

1.2

1.0

.8

Amps

.6

.4

.2

0

Single Phase, Half Wave
60Hz Resistive or Inductive Load

0   50   75   100   125   150   175

°C

Average Forward Rectified Current - Amperes *versus*
Ambient Temperature - °C

Figure 3
Junction Capacitance

pF

100
60
40

20

10

6
4

2

1

T_J=25°C

.1   .2   .4   1   2   4   10   20   40   100   200   400   1000
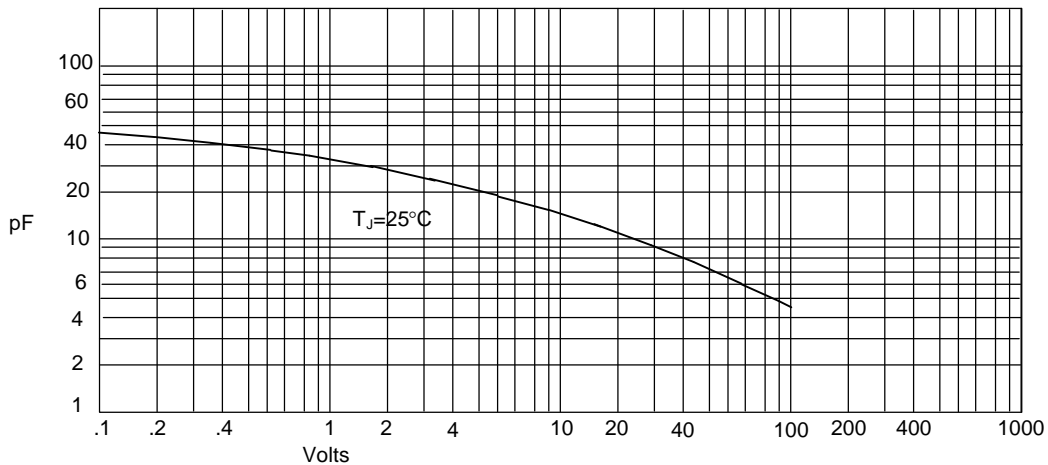
Volts

Junction Capacitance - pF *versus*
Reverse Voltage - Volts

1N4001GP thru 1N4007GP

Figure 4
Typical Reverse Characteristics

Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5
Peak Forward Surge Current
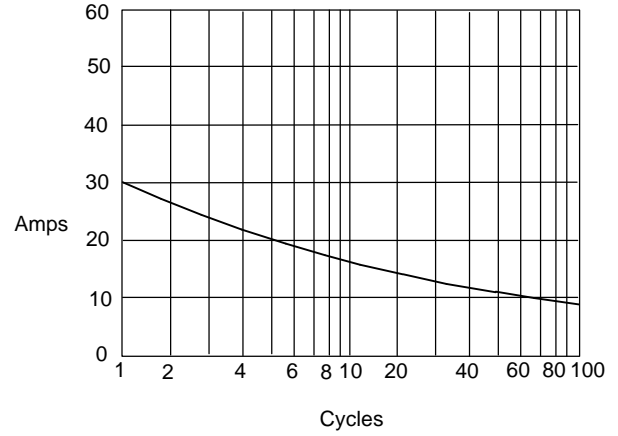
Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 60Hz - Cycles