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CENPAK ELECTRONICS

# 1N4001 THRU 1N4007

## 1 Amp Rectifier 50 - 1000 Volts

### Features

- Low Current Leakage
- Metallurgically Bonded Construction
- Low Cost

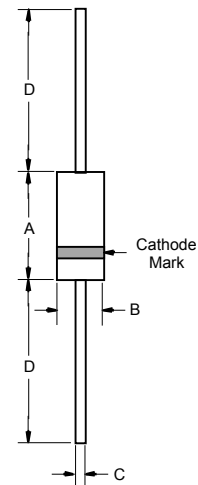
### Maximum Ratings

- Operating Temperature: -5 °C to +125 °C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance: 25°C/W Junction to Lead at 0.375"

Lead Length P.C.B. Mounted

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
1N4001	---	50V	35V	50V
1N4002	---	100V	70V	100V
1N4003	---	200V	140V	200V
1N4004	---	400V	280V	400V
1N4005	---	600V	420V	600V
1N4006	---	800V	560V	800V
1N4007	---	1000V	700V	1000V

### DO-41



### Electrical Characteristics @ 25°C Unless Otherwise Specified

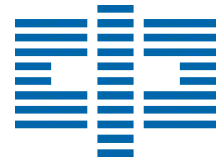
Average Forward Current	$I_{F(AV)}$	1.0A	$T_A = 75^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.1V	$I_{FM} = 1.0\text{A}; T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0μA 50μA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Typical Junction Capacitance	$C_J$	15pF	Measured at 1.0MHz, $V_R = 4.0\text{V}$
Maximum Reverse Recovery Time	$T_{rr}$	2.0us	$I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$

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

### DIMENSIONS

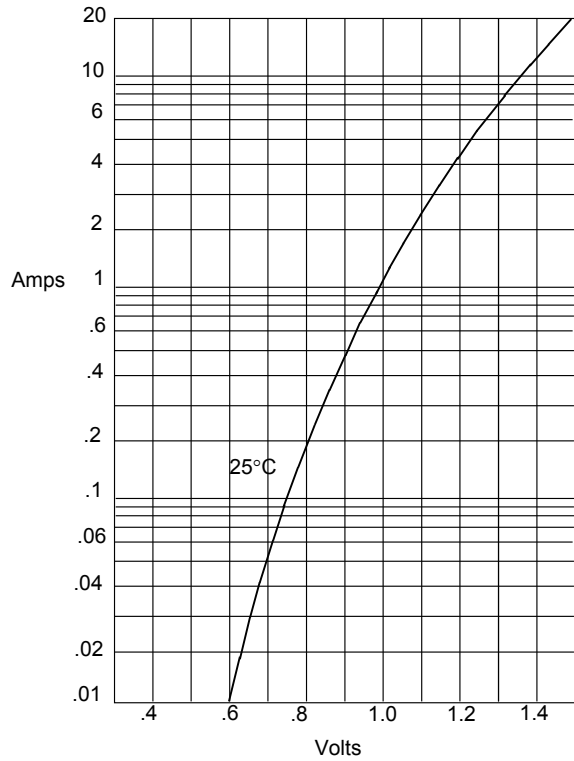
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.166	.205	4.10	5.20	
B	.080	.107	2.00	2.70	
C	.028	.034	.70	.90	
D	1.000	---	25.40	---	

# 1N4001 thru 1N4007



TM

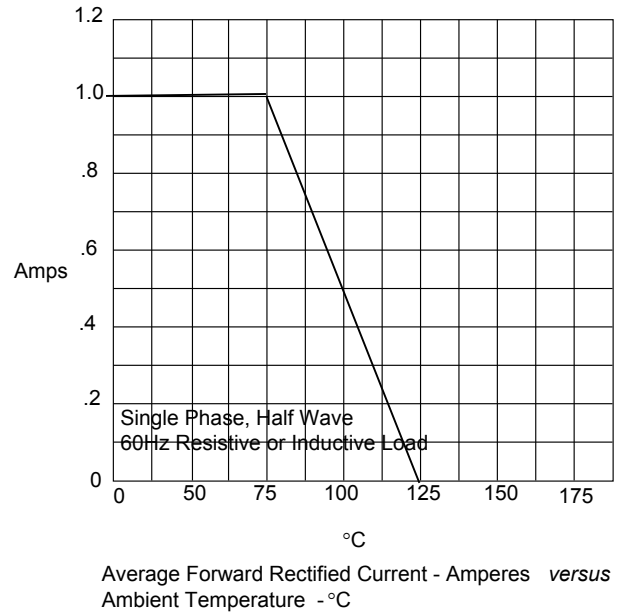
Figure 1  
Typical Forward Characteristics



Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

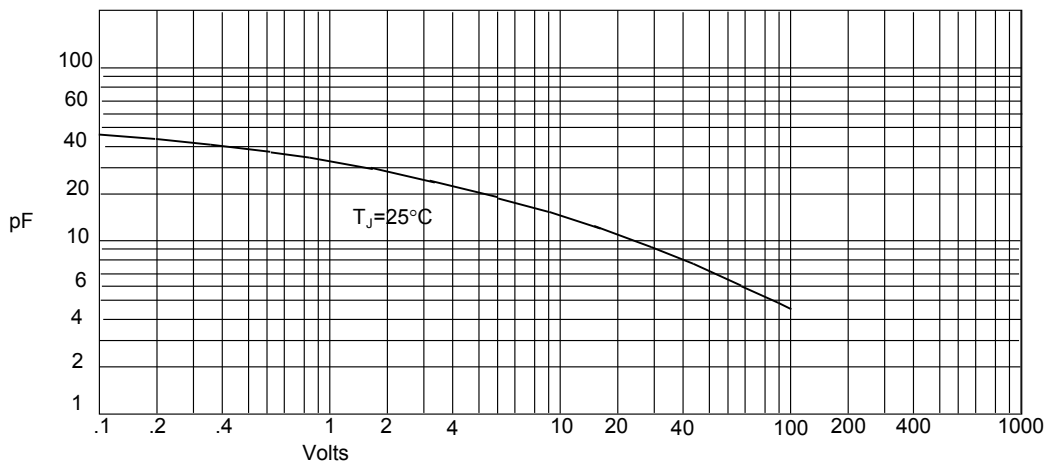
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Figure 2  
Forward Derating Curve



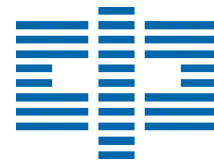
Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



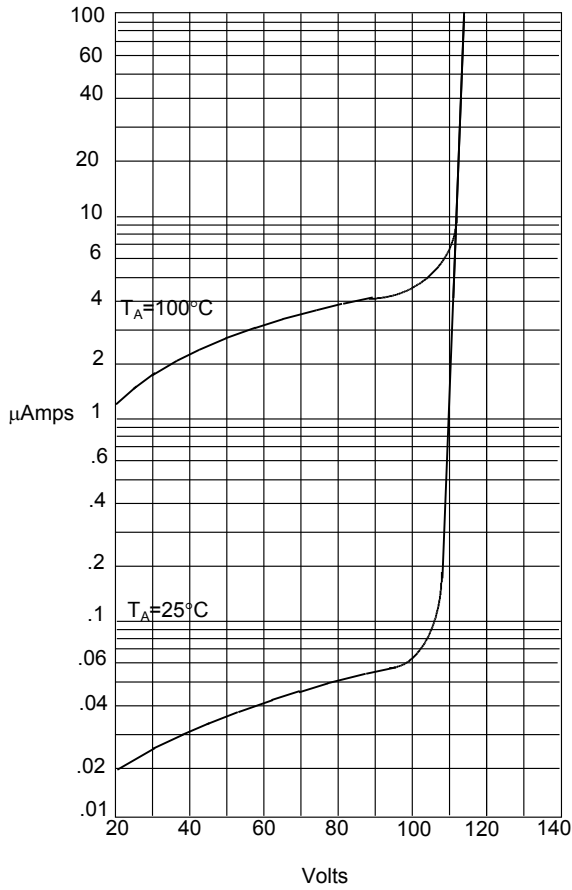
Junction Capacitance - pF versus  
Reverse Voltage - Volts

# 1N4001 thru 1N4007



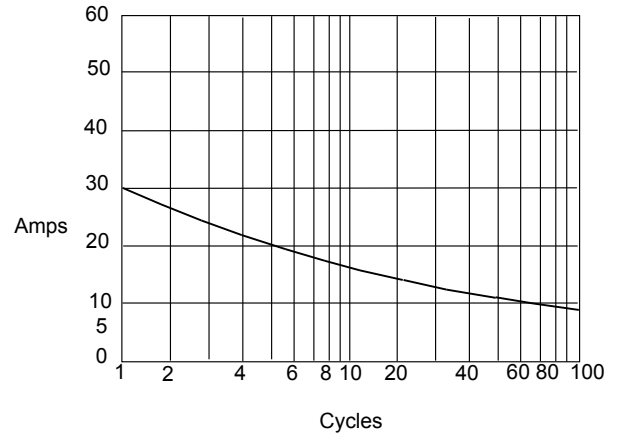
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Figure 4  
Typical Reverse Characteristics



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