



# 1N4001 THRU 1N4007

**1.0 AMP. SILICON  
RECTIFIERS**

Voltage Range  
50 to 1000 Volts  
Current  
1.0 Amperes

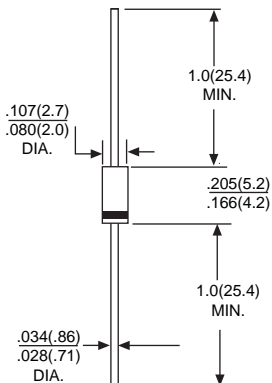
**Features**

- \*Low forward voltage drop
- \*High current capability
- \*High reliability
- \*High surge current capability

**Mechanical Data**

- \*Cases: Molded plastic
- \*Epoxy: UL 94V-0 rate flame retardant
- \*Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- \*Polarity: Color band denotes cathode end
- \*High temperature soldering guaranteed:  
250°C/10 seconds/.375"(.95mm) lead lengths at 5 lbs.(2.3kg) tension
- \*Weight: 0.35 gram

**DO-41**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

Type Number		1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	v
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	v
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @T <sub>A</sub> = 75°C	I <sub>F(AV)</sub>	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I <sub>FSM</sub>	30							A
Maximum Instantaneous Forward Voltage @1.0A	V <sub>F</sub>	1.0							v
Maximum DC Reverse Current @ T <sub>A</sub> = 25°C at Rated DC Blocking Voltage @ T <sub>A</sub> = 125°C	I <sub>R</sub>	5.0 50							uA uA
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @T <sub>L</sub> =75°C	I <sub>R</sub>	30							uA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	15							pF
Typical Thermal Resistance (Note 2)	R <sub>JA</sub>	50							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to+125							°C

NOTES: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.  
2. Thermal Resistance from Junction to Ambient .375"(9.5mm) Lead Length.

# RATING AND CHARACTERISTIC CURVES 1N4001 THRU 1N4007



FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

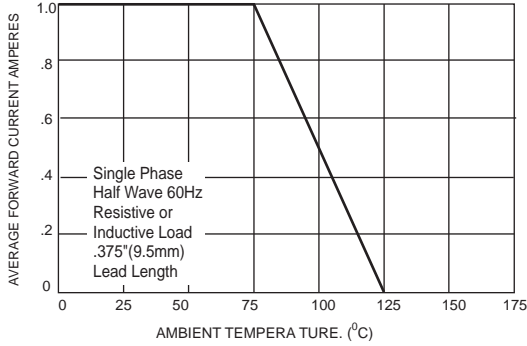


FIG. 1- TYPICAL FORWARD CHARACTERISTICS

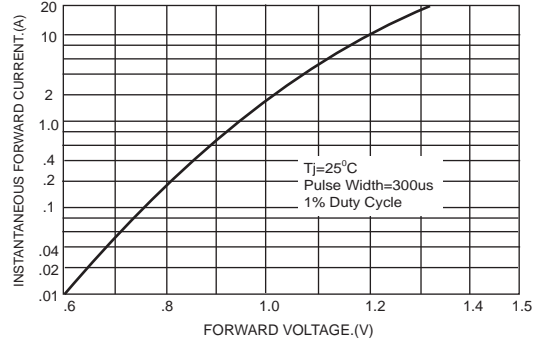


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

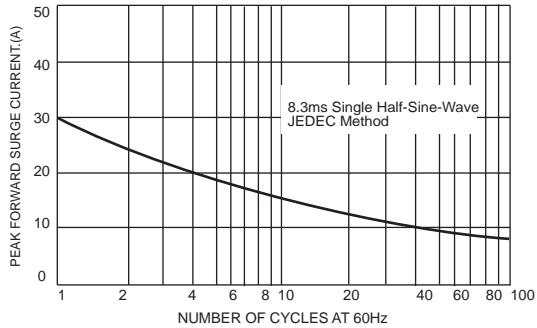


FIG. 4- TYPICAL JUNCTION CAPACITANCE

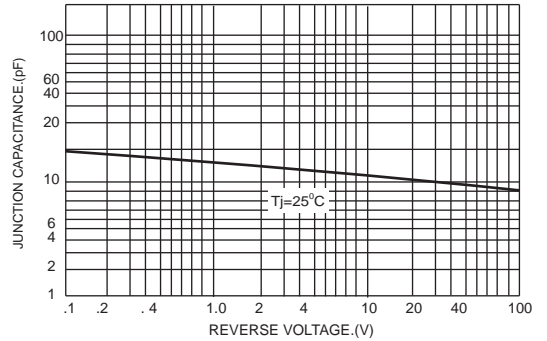


FIG. 5- TYPICAL REVERSE CHARACTERISTICS

