



1N4001 THRU 1N4007

**1.0 AMP. SILICON
RECTIFIERS**

Voltage Range
50 to 1000 Volts
Current
1.0 Amperes

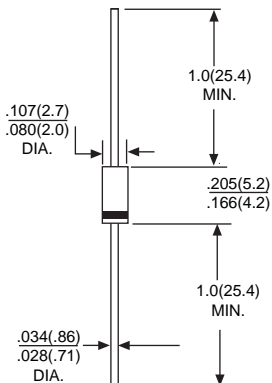
Features

- *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 _{RRM}	50	100	200	400	600	800	1000	v
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	v
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	v
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @T _A = 75°C	I _{F(AV)}	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	30							A
Maximum Instantaneous Forward Voltage @1.0A	V _F	1.0							v
Maximum DC Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage @ T _A = 125°C	I _R	5.0 50							uA uA
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @T _L =75°C	I _R	30							uA
Typical Junction Capacitance (Note 1)	C _J	15							pF
Typical Thermal Resistance (Note 2)	R _{JA}	50							°C/W
Operating and Storage Temperature Range	T _J ,T _{STG}	-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

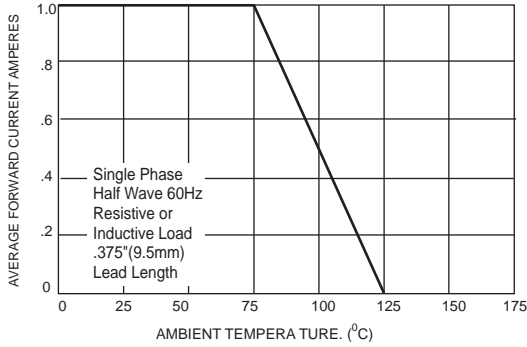


FIG. 1- TYPICAL FORWARD CHARACTERISTICS

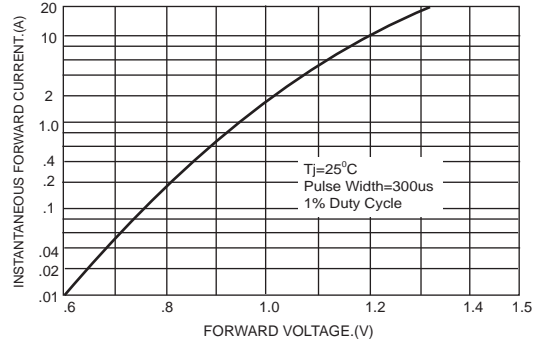


FIG. 3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

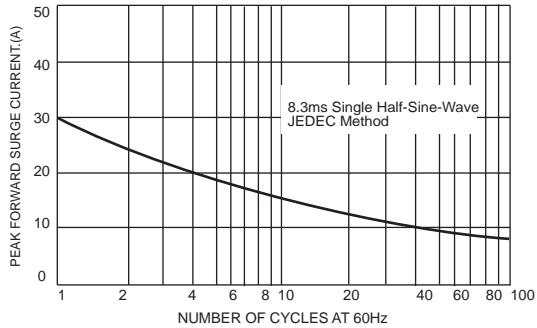


FIG. 4- TYPICAL JUNCTION CAPACITANCE

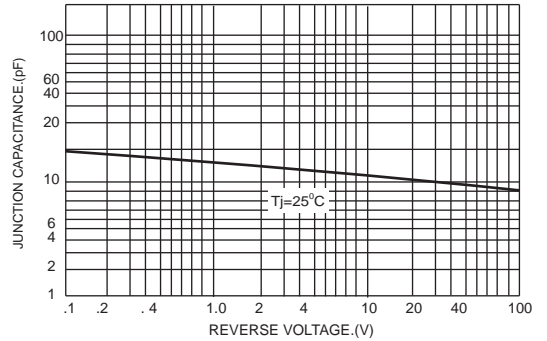


FIG. 5- TYPICAL REVERSE CHARACTERISTICS

