

# 1N4001 THRU 1N4007

## TECHNICAL SPECIFICATIONS OF SILICON RECTIFIER

VOLTAGE: 50-1000V

CURRENT: 1.0A

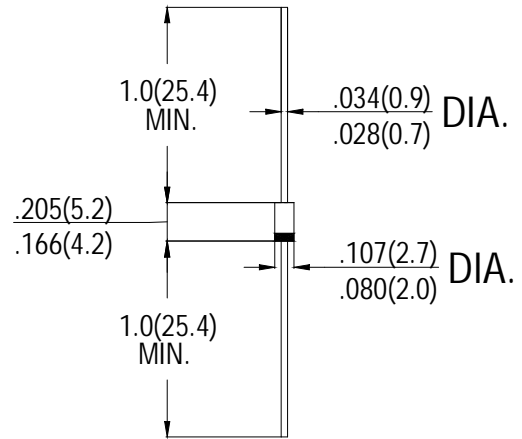
### FEATURES

- High reliability
- Low leakage
- Low forward voltage drop
- High current capability

### MECHANICAL DATA

- **Case:** Molded plastic
- **Epoxy:** UL94V-0 rate flame retardant
- **Lead:** MIL-STD- 202E, Method 208 guaranteed
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any
- **Weight:** 0.33 grams

### DO-41



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	units
Maximum Recurrent 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 at $T_A=75^\circ\text{C}$	$I_o$	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	30							A
Maximum Instantaneous forward Voltage at 1.0A DC	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ $T_A=25^\circ\text{C}$	5.0							$\mu\text{A}$
	@ $T_A=100^\circ\text{C}$	500							
Maximum Full Load Reverse Current Average Full Cycle .375"(9.5mm) lead length at $T_L=75^\circ\text{C}$	$I_R$	30							
Typical Junction Capacitance (Note)	$C_J$	15							pF
Typical Thermal Resistance	$R_{\theta JA}$	50							$^\circ\text{C/W}$

Notes: Measured at 1MHz and applied reverse voltage of 4.0 volts