

## Semiconductors – Discrete Devices

### DC components 1N4000 series – Silicon rectifier diodes



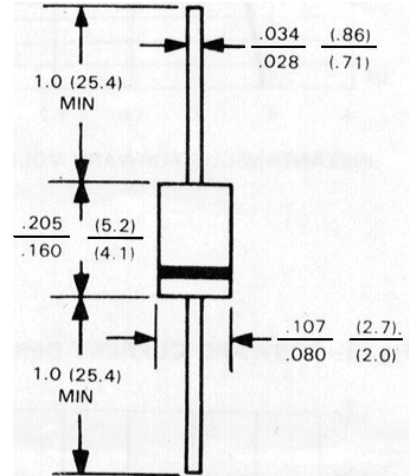
**Features:**

- Low forward voltage
- High current capability
- Low leakage current
- High surge capability
- Low cost

**Mechanical data:**

**Case:** Moulded plastic use UL 94V-0 recognised  
 Flame retardant epoxy  
**Terminals:** Axial leads, solderable per MIL-STD-202, method 208  
**Polarity:** Colour band denotes cathode  
**Mounting position:** Any

**Voltage range:** 50 to 1000 Volts  
**Current:** 1.0 Ampere



**Maximum ratings and electrical characteristics:**

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

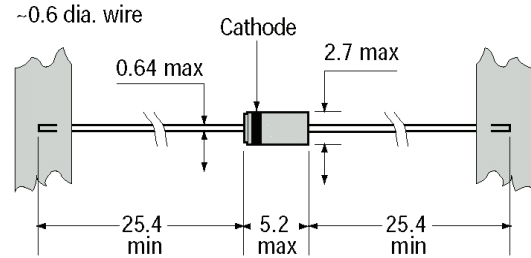
DC part no.:	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	Units
Maximum recurrent peak reverse voltage* :	50	100	200	400	600	800	1000	V
Maximum RMS voltage* :	35	70	140	280	420	560	700	V
Maximum DC blocking voltage* :	50	100	200	400	600	800	1000	V
Maximum average forward* rectified current 3/8 lead length at T <sub>A</sub> = 75°C:	1.0							A
Maximum overload surge 8.3 ms single half sine-wave:	50							A
Maximum forward voltage at 1.0A AC and 25°C* :	1.1							V
Maximum full load reverse current, full cycle average at 75°C ambient* :	30							μA
Maximum DC reverse current at 25°C at rated DC blocking voltage at 75°C:	5.0 50.0							μA μA
Typical junction capacitance (note 1):	30							pF
Operating and storage temperature range:	-65 to +175							°C

## 1N4000S series

The "S" suffix denotes 0.6mm lead diameter, which is suitable for use in auto-insertion equipment. The electrical and mechanical data is as per the 1N4000 series.

Note: Package may be marked with an "A" suffix.

### 1N4000S dimensions (mm):



Component spacing 5 Tape spacing (inner) 52

### Rating and characteristic curves

Fig. 1 – TYPICAL FORWARD CHARACTERISTICS

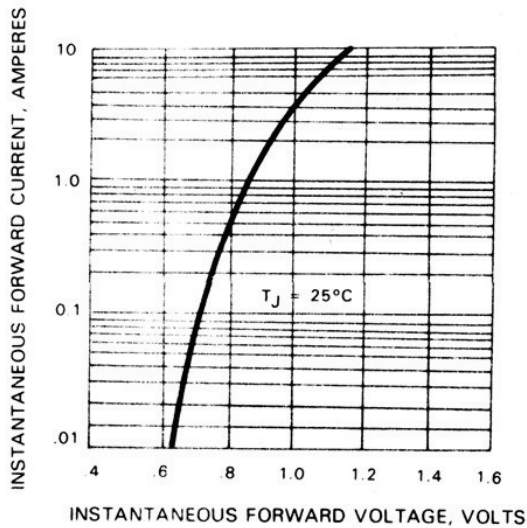


Fig. 1 – TYPICAL FORWARD CHARACTERISTICS

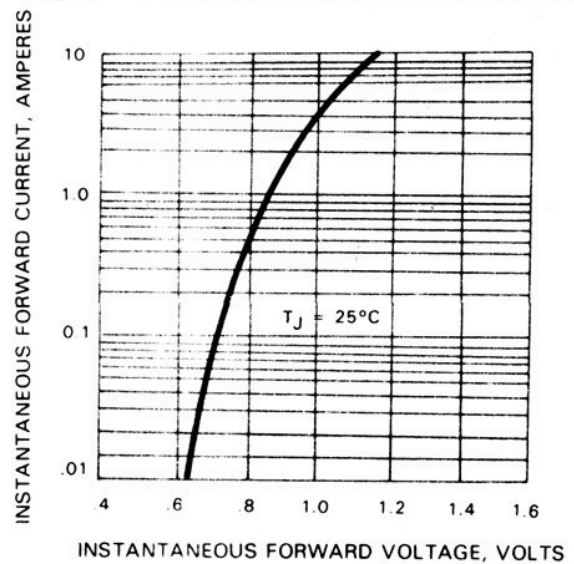


Fig. 3 – FORWARD CURRENT DERATING CURVE

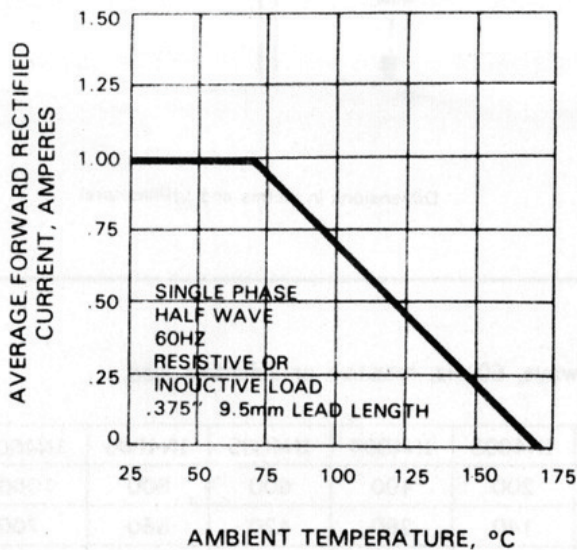


Fig. 4 – TYPICAL JUNCTION CAPACITANCE

