

- Low cost construction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed;  
260°C/10 seconds/.375" (9.5mm) lead length  
at 5 lbs (2.3kg) tension

- Case; Transfer molded plastic
- Epoxy; UL94V—0 rate flame retardant
- Polarity; Color band denotes cathode end
- Lead; Plated axial lead, solderable per MIL—STD—202E method 208C
- Mounting position; Any
- Weight; 0.012 ounce, 0.33 gram

Technical drawing of a probe tip assembly. The drawing shows a vertical shaft with a central hole. The top section has an outer diameter of .034 (0.9) and an inner diameter of .028 (0.7). The length of this section is 1.0 (25.4) MIN. The bottom section has an outer diameter of .107 (2.7) and an inner diameter of .080 (2.0). The length of this section is 1.0 (25.4) MIN. The total length of the assembly is 2.0 (50.8) MIN. The drawing is labeled DO-41.

Dimensions in inches and (millimeters)

## Ratings at 25°C ambient temperature unless otherwise specified.

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Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load derate current by 20%.

		SYMBOLS	1N 4001	1N 4002	1N 4003	1N 4004	1N 4005	1N 4006	1N 4007	UNITS
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at T <sub>A</sub> = 75°C		I <sub>(AV)</sub>	1.0						Amp	
Peak Forward Surge Current 8.3ms single half sine—wave superimposed on rated load (JEDEC Method)		I <sub>FSM</sub>	30						Amps	
Maximum Instantaneous Forward Voltage at 1.0A		V <sub>F</sub>	1.1						Volts	
Maximum DC Reverse Current at rated DC blocking voltage	T <sub>A</sub> = 25°C	I <sub>R</sub>	5.0						μAmps	
	T <sub>A</sub> = 100°C		50							
Maximum Full Load Reverse Current, full cycle average 0.375" (9.5mm) lead length at T <sub>L</sub> = 75°C		I <sub>R(AV)</sub>	30						μAmps	
Typical Junction Capacitance (NOTE 1)		C <sub>J</sub>	15						pF	
Typical Thermal Resistance (NOTE 2)		R <sub>θJA</sub>	50						°C/W	
Operating and Storage Temperature Range		T <sub>J</sub> , T <sub>STG</sub>	-65 to +175						°C	

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.

2. Thermal Resistance from Junction to Ambient at  $375^{\circ}\text{F}$  (9.5mm) lead length, P. C. board mounted with 0.2"  $\times$  0.2" (5.0  $\times$  5.0mm) copper pads.

# RATINGS AND CHARACTERISTIC CURVES IN4001 THRU IN4007

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

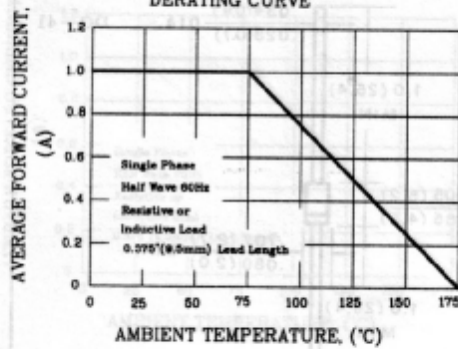


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

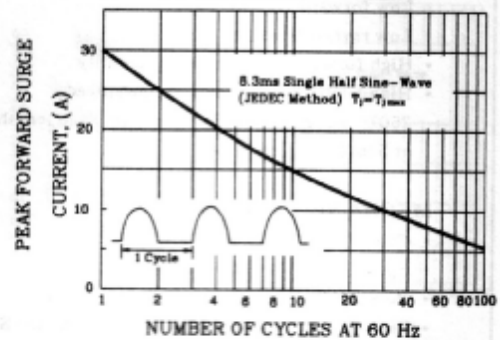


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

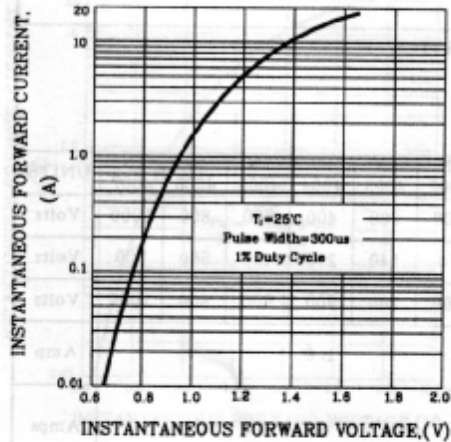


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

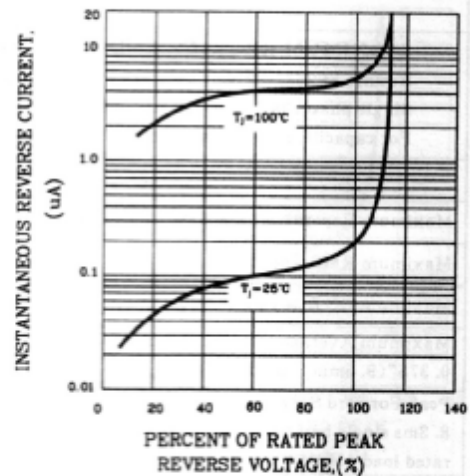


FIG. 5-TYPICAL JUNCTION CAPACITANCE

