

1N4001 THRU 1N4007

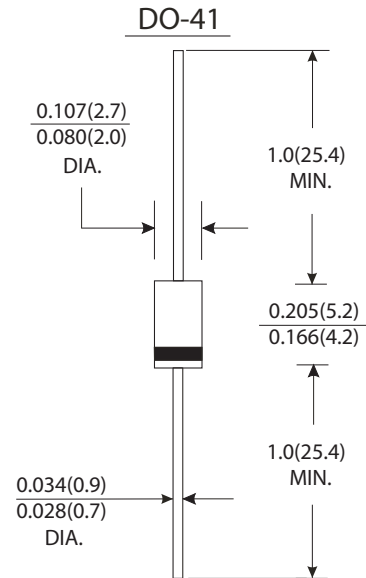
CURRENT 1.0 Ampere
VOLTAGE 50 to 1000 Volts

Features

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed : 250°C/10 seconds, 0.375"(9.5mm) lead length, 5lbs.(2.3kg).

Mechanical Data

- Case : JEDEC DO-41 molded plastic body
- Terminals : Lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.012 ounce, 0.33 gram



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 by 20%)

	Symbols	1N 4001	1N 4002	1N 4003	1N 4004	1N 4005	1N 4006	1N 4007	Units
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length T _A =75°C	I _(AV)	1.0							Amp
Peak forward surge current 8.3ms half sine wave superimposed on rated load (JEDEC method) at T _A =75°C	I _{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V _F	1.1							Volts
Maximum reverse current at rated DC blocking voltage	T _A =25°C	5.0							μ A
	T _A =100°C	50.0							
Typical thermal resistance (Note 2)	R _{θ JA}	50.0							°C/W
	R _{θ JL}	25.0							
Typical junction capacitance (Note 1)	C _J	15.0							pF
Maximum DC blocking voltage temperature	T _A	+150							°C
Operating and storage temperature range	T _J T _{STG}	-50 to +175							°C

Notes:

- (1) Measured at 1MHz and applied reverse voltage of 4.0V DC.
- (2) Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm) lead length, P.C.B. mounted



RATINGS AND CHARACTERISTIC CURVES 1N4001 THRU 1N4007

FIG.1-FORWARD CURRENT DERATING CURVE

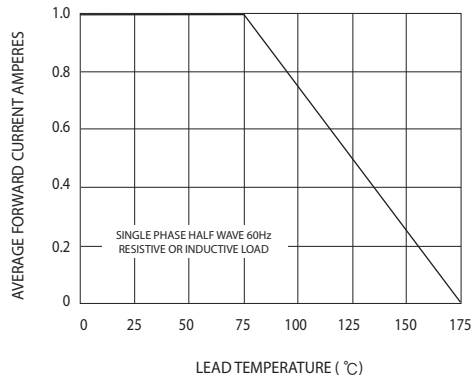


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

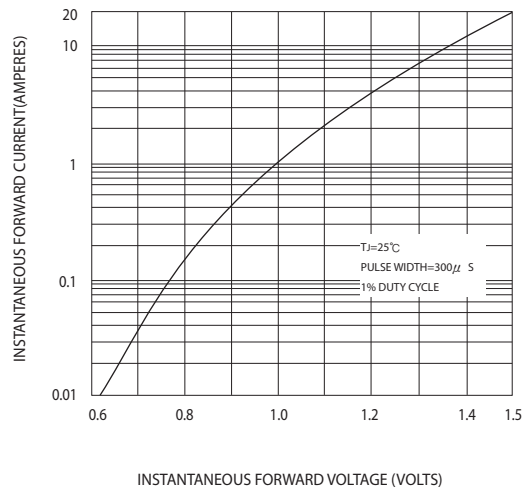


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

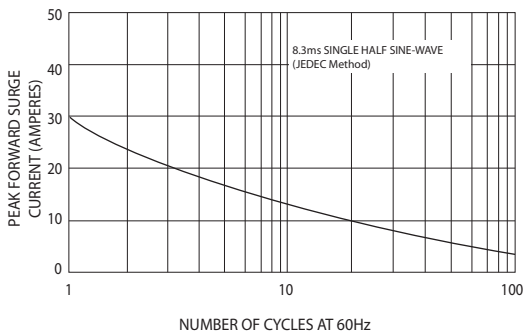


FIG.4-TYPICAL REVERSE CHARACTERISTICS

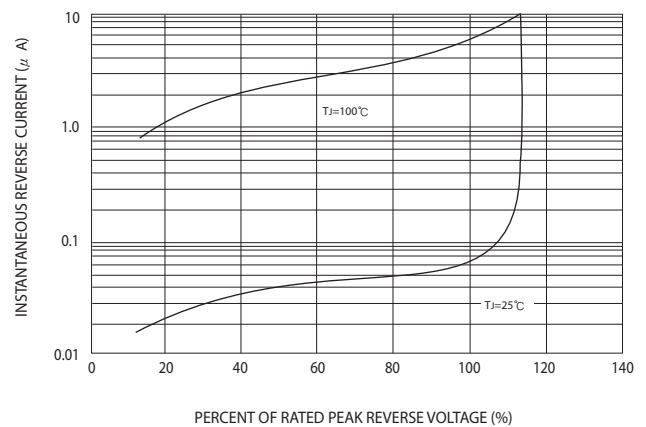


FIG.5-TYPICAL JUNCTION CAPACITANCE

