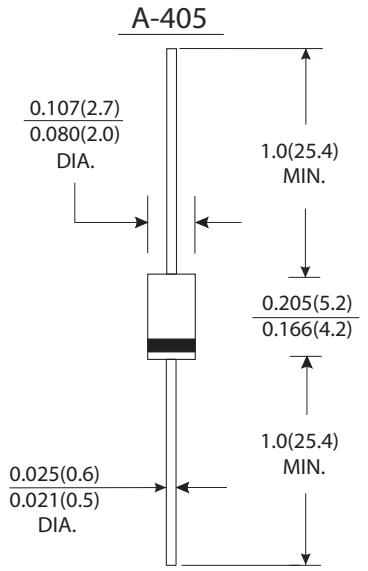
DEC

1N4001S THRU 1N4007S

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 reliability



Dimensions in inches and (millimeters)

Mechanical Data

- Case : A-405 molded plastic body
- Terminals : Lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.008 ounce, 0.23 gram

Maximum Ratings And Electrical Characteristics

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

		Symbols	1N 4001S	1N 4002S	1N 4003S	1N 4004S	1N 4005S	1N 4006S	1N 4007S	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=25℃		$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms half sing wave superimposed on rated load (JEDEC method) at T_A=75℃		I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A		V_F	1.1							Volts
Maximum reverse current at rated voltage	T_A=25℃	I_R	5.0							μ A
	T_A=100℃		50.0							
Typical thermal resistance (Note 2)		$R\theta_{JA}$	50.0							℃/W
Typical junction capacitance (Note 1)		C_J	15.0							pF
Operating and Storage temperature Range		T_J T_{STG}	-50 to +175							℃

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 1N4001S THRU 1N4007S

FIG.1-FORWARD CURRENT DERATING CURVE

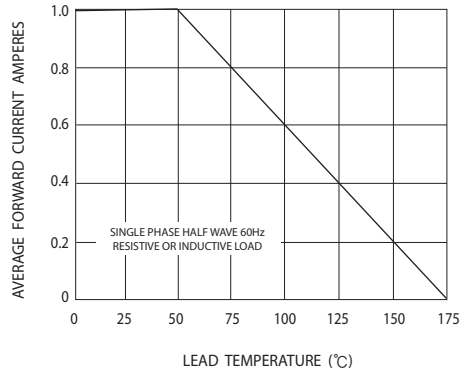


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

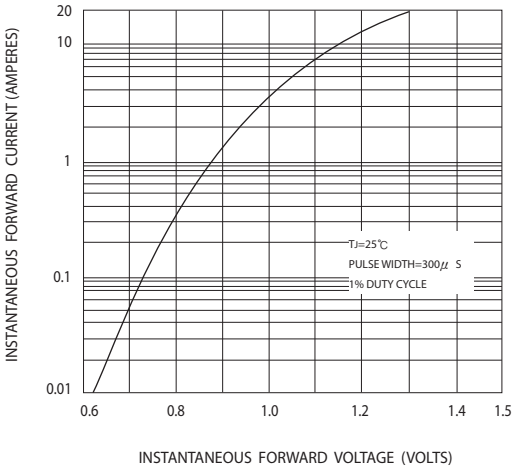


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

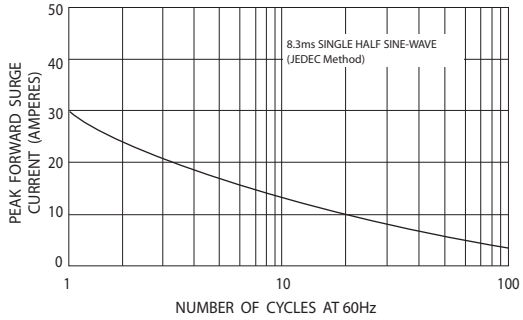


FIG.4-TYPICAL REVERSE CHARACTERISTICS

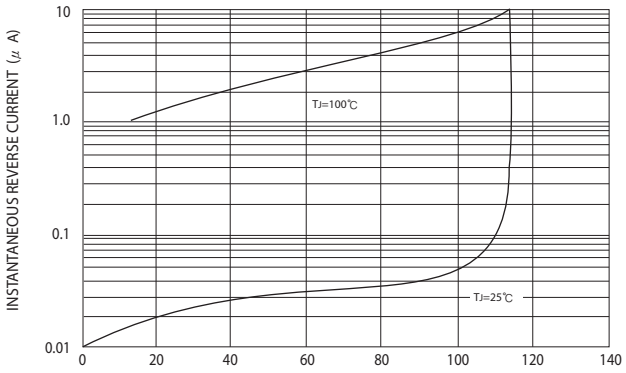


FIG.5-TYPICAL JUNCTION CAPACITANCE

