1N4001 THRU 1N4007

1.0 AMP SILICON RECTIFIERS

FEATURES

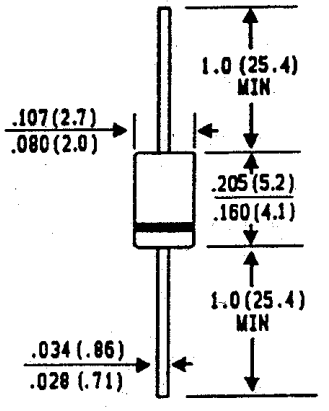
* The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
* Low cost construction utilizing void-free molded plastic technique
* Diffused junction
* Low reverse leakage
* High current capability
* Easily cleaned with Freon, Alcohol, Chlorothen, and similar solvents
* High temperature soldering guaranteed : 265°C/10 seconds/.375"(9.5mm)lead lengths at 5 lbs(2.3kg) tension

MECHANICAL DATA

* Case: Molded plastic
* Polarity: Color band denotes cathode end
* Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
* Mounting position: Any
* Weight: 0.012 ounce, 0.3 gram

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1.0 Ampere

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, 60 Hz, resistive or inductive load.
For capacitive load derate current by 20%.

		SYMBOLS	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	UNITS
Maximum Recurrent Peak Reverse Voltage		Vrrm	50	100	200	400	600	800	1000	V
Maximum RMS Voltage		Vrms	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		Vdc	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375" (9.5mm)lead length at TA=75°C		I(AV)	1.0							A
Peak Forward Surge Current 8.3 ms single half sine wave superimposed on rated load (JEDEC method)		Ifsm	30							A
Maximum instantaneous Forward Voltage at 1.0A DC		VF	1.1							V
Maximun Reverse Current at Rated DC Blocking Voltage per element	@TA=25°C	IR	5.0							uA
	@TA=100°C	HTIR	50							uA
Maximum DC Reverse Current Average, Full cycle .375"(9.5mm) lead length at TL=75°C		HTIR	30							uA
Typical Junction Capacitance (Note1)		CJ	30							pf
Typical Thermal Resistance (Note2)		RTHja	50							°C/W
Operating and Storage Temperature Range		Tj,Tstg	-65 TO +175							°C

NOTES :
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at .375"(9.5mm)lead length, P.C.board mounted.

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RATINGS AND CHARACTERISTIC CURVES 1N4001 THRU 1N4007

FIG. 1 — FORWARD CURRENT DERATING CURVE

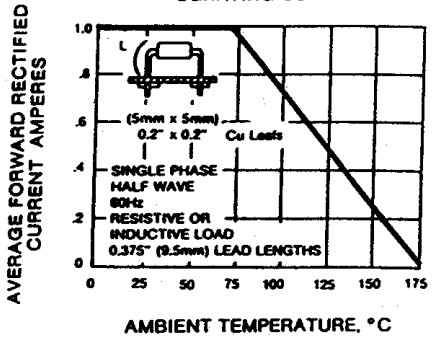


FIG. 2 — TYPICAL FORWARD CHARACTERISTICS

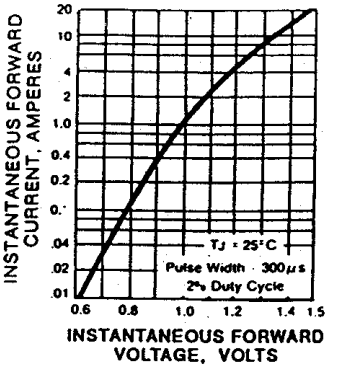


FIG. 3 — MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

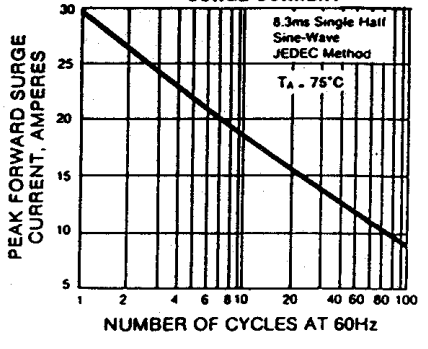


FIG. 4 — PEAK FORWARD SURGE CURRENT

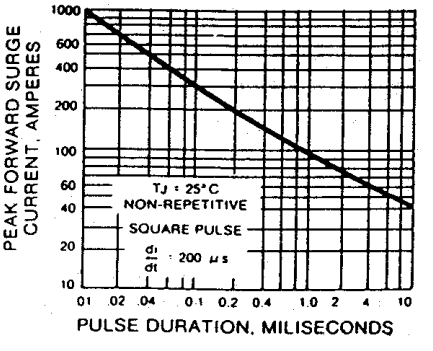


FIG. 5 — TYPICAL JUNCTION CAPACITANCE

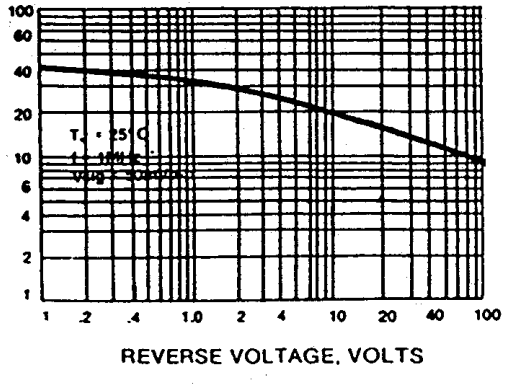
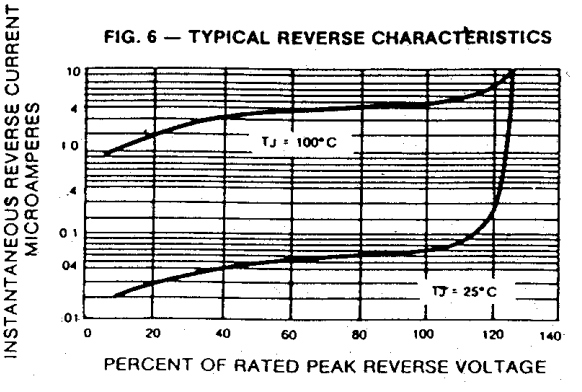


FIG. 6 — TYPICAL REVERSE CHARACTERISTICS



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