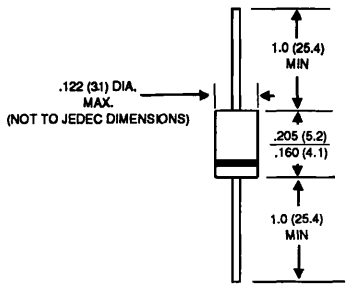
1N4001P THRU 1N4007P

MINIATURE PLASTIC SILICON RECTIFIER

***VOLTAGE** - 50 to 1000 Volts **CURRENT** - 1.0 Ampere*

FEATURES

DO-41 MODIFIED



Dimension in inches and (millimeters)

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-O
- Void-free molded plastic construction
- Low cost
- Diffused junction
- Low leakage
- High surge current capability
- Easily cleaned with Freon, Alcohol, Chlorothene 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: DO-41 modified case
Terminals: Plated axial leads, solderable per MIL-STD-202, Method 208
Polarity: Color band denotes cathode end
Weight: 0.012 ounce, 0.3 gram
Mounting Position: Any
Handling Precautions: None

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	1N 4001P	1N 4002P	1N 4003P	1N 4004P	1N 4005P	1N 4006P	1N 4007P	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 .375", (9.5mm) lead lengths at T_A = 75°C	$I_{(AV)}$	1.0							Amps
*Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							Amps
*Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.1							Volts
*Maximum Full Load Reverse Current Full Cycle Average .375", (9.5mm) lead lengths at T_L = 75°C	I_R	30.0							μA
*Maximum DC Reverse Current T_A = 25°C	I_R	5.0							μA
at Rated DC Blocking Voltage T_A = 100°C		50.0							
Typical Reverse Recovery Time (Note 1) T_A = 25°C	T_{RR}	30.0							μs
Typical Junction Capacitance (Note 2) T_J = 25°C	C_J	30.0							pf
Typical Thermal Resistance (Note 3)	RΘJA	50.0							°C/W
*Operating and Storage Temperature Range,	T_J,T_{STG}	-50 to +175							°C

NOTES:
1. Measured on Tektronix Type "S" recovery plug-in. Tektronix 545 Scope or equivalent, IFM = 20mA, IRM =1mA
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
3. Thermal Resestance from Junction to Ambient at. 375" (9.5mm) lead lengths, P.C. Board mounted.
*JEDEC Registered Value

FIG. 1 — FORWARD CURRENT DERATING CURVE

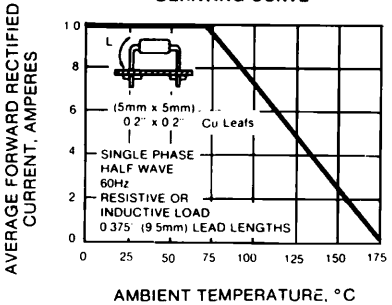


FIG. 2 — TYPICAL FORWARD CHARACTERISTICS

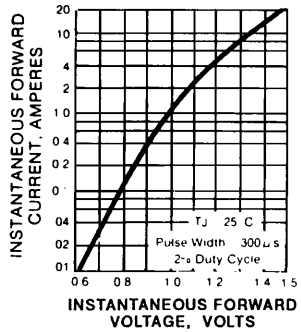


FIG. 3 — MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

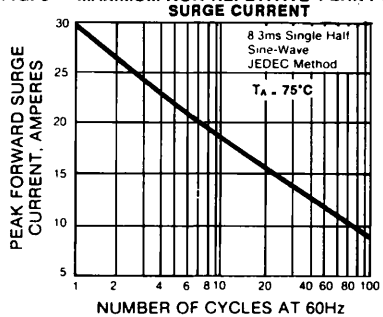


FIG. 4 — PEAK FORWARD SURGE CURRENT

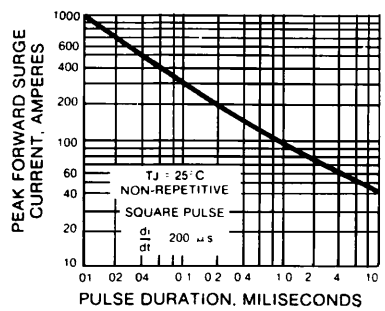


FIG. 5 — TYPICAL JUNCTION CAPACITANCE

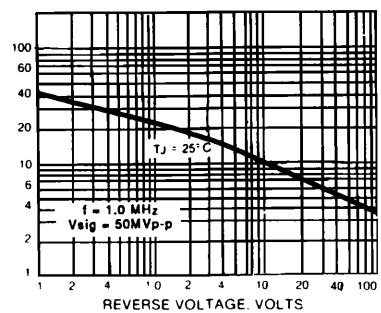


FIG. 6 — TYPICAL REVERSE CHARACTERISTICS