



1N4001(L) THRU 1N4007(L)

1.0 AMP. SILICON RECTIFIERS

VOLTAGE RANGE

50 to 1000 Volts
CURRENT
1.0 Ampere

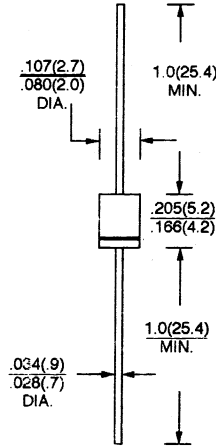
FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability

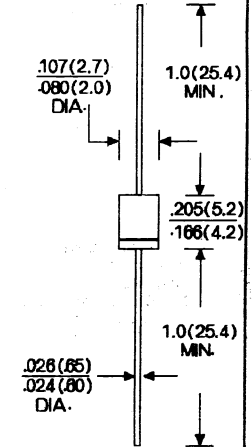
MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V - 0 rate flame retardant
- * Lead: Axial leads, solderable per MIL - STD - 202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting Position: Any
- * Weight: 0.34 grams (0.22 grams A - 405)

DO-41



A-405



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%

TYPE NUMBER	SYMBOLS	1N4001(L)	1N4002(L)	1N4003(L)	1N4004(L)	1N4005(L)	1N4006(L)	1N4007(L)	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum D. C Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375" (9.5mm) lead length @ $T_A = 75^\circ\text{C}$ (Do - 41), $T_A = 50^\circ\text{C}$ (A - 405)	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms single half sine - wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage 1.0A	V_F	1.0							V
Maximum D. C Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated D. C Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_R	5.0 50.0							μA μA
Typical Junction Capacitance (Note 2)	C_J	15							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	50							$^\circ\text{C}/\text{W}$
Operation Temperature Range	T_J	- 65 to + 125							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 125							$^\circ\text{C}$

- NOTES: 1. 1N4001 thru 1N4001 package style Do - 41
1N4007L thru 1N4007L package style A - 405
2. Measured at MHz and applied reverse voltage of 4.0V. D. C
3. Thermal resistance from Junction to Ambient 0.375" (9.5mm) Lead Length, P. C. B mounted

RATINGS AND CHARACTERISTIC CURVES

1N4001(L) THRU 1N4007(L)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

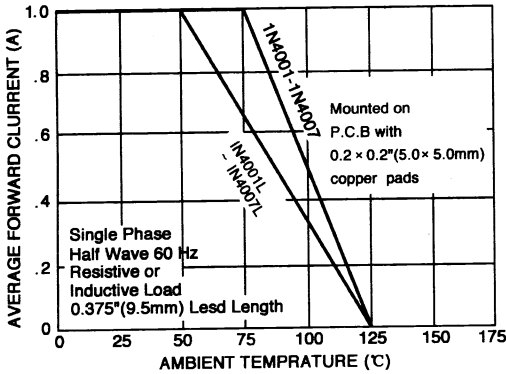


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

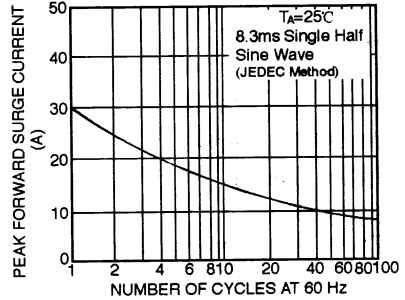


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

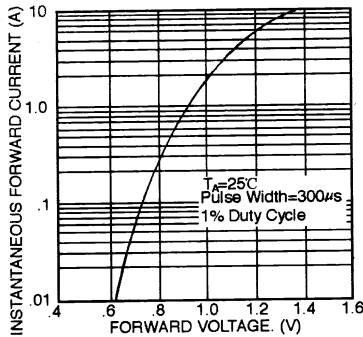


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

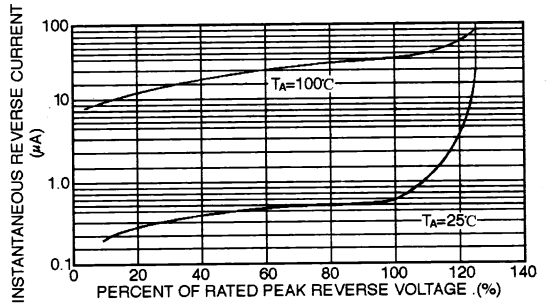


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

