

Features

- * Low Forward Voltage Drop
- * High Current Capability
- * High Reliability
- * High Surge Current Capability

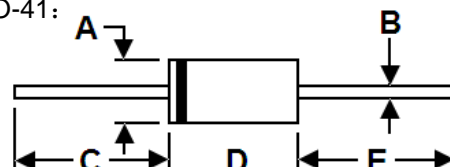


RoHS
COMPLIANT



Package Outline Dimensions

A-405/DO-41:



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.0	2.7	0.078	0.107
B(A-405)	0.53	0.64	0.020	0.025
B(DO-41)	0.7	0.9	0.027	0.035
C	25.4	-	1.0	-
D	4.2	5.2	0.165	0.205
E	25.4	-	1.0	-

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

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	Symbol	1N 4001(L)	1N 4002(L)	1N 4003(L)	1N 4004(L)	1N 4005(L)	1N 4006(L)	1N 4007(L)	Unit
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, 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage at 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
Typical Junction Capacitance(Note1)	C_J	15							pF
Typical Thermal Resistance(Note2)	$R_{\theta JA}$	50							$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	T_J/T_{STG}	-55 to +125 / -55 to +150							$^\circ\text{C}$

Note:1、 Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C.

2、 Thermal Resistance From Junction to Ambient 0.375"(9.5mm) Lead Length.

Ratings and Characteristic Curves

FIG. 1 – TYPICAL FORWARD CURRENT DERATING CURVE

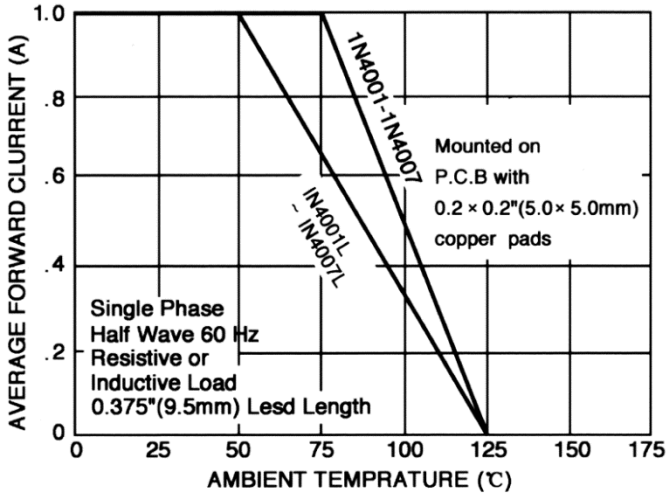


FIG. 2 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

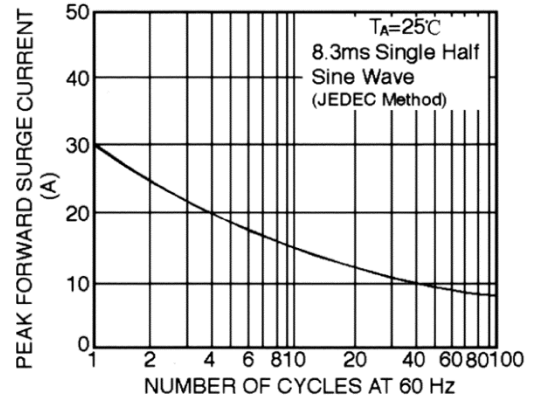


FIG. 3 – TYPICAL FORWARD CHARACTERISTICS

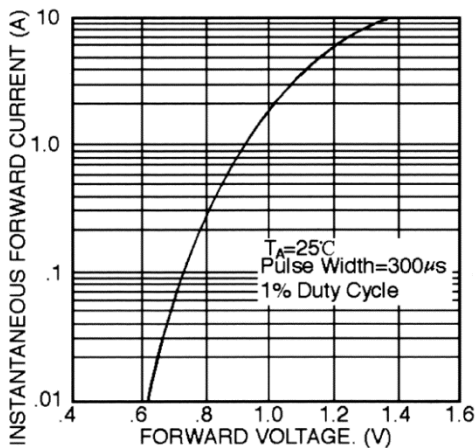


FIG. 4 – TYPICAL REVERSE CHARACTERISTICS

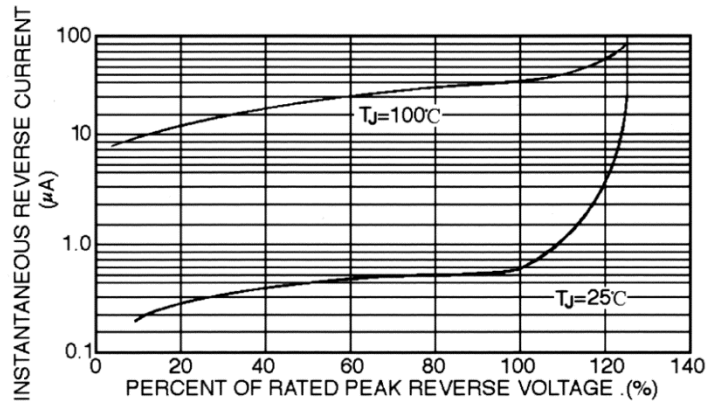
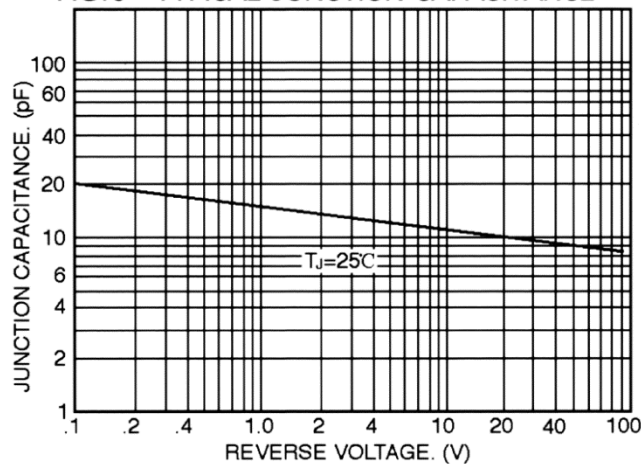


FIG. 5 – TYPICAL JUNCTION CAPACITANCE





1N4001(L) THRU 1N4007(L)

1.0 Amp. Silicon Rectifiers

Ordering Information

Part No.	Package	Packing
1N4001~1N4007(L)	A-405/DO-41	3K/AMMO box
1N4001~1N4007(L)	A-405/DO-41	5K/AMMO box
1N4001~1N4007(L)	A-405/DO-41	5K/13" Paper reel
1N4001~1N4007(L)	A-405/DO-41	1K/Bulk packing