

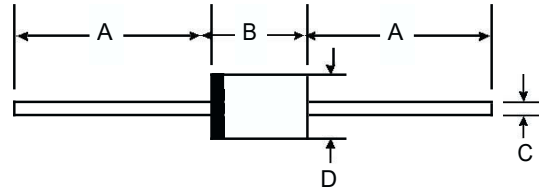
1A Silicon Rectifiers

1N4001 THRU 1N4007 50 to 1000 V 1.0 A

Features

Diffused Junction

High Current Capability and Low Forward Voltage Drop
Surge Overload Rating to 30A Peak
Low Reverse Leakage Current
Plastic Material: UL Flammability Classification Rating 94V-0



Mechanical Data

Case: Molded Plastic

Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

Polarity: Cathode Band

Weight: DO-41 0.30 grams (approx)

A-405 0.20 grams (approx)

Mounting Position: Any

Marking: Type Number

Dim	DO-41 Plastic		A-405	
	Min	Max	Min	Max
A	26.0		26.0	
B	4.06	5.21	4.10	5.20
C	0.64	0.70	0.50	0.60
D	2.00	2.72	2.00	2.70

All Dimensions in mm

"L" Suffix Designates A-405 Package
No Suffix Designates DO-41 Package

Maximum Ratings and Electrical Characteristics

@ T_A = 25 C unless otherwise specified

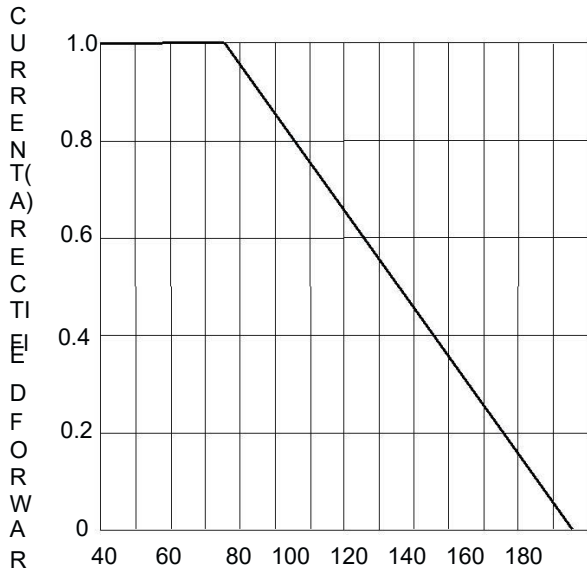
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	1N 4001	1N 4002	1N 4003	1N 4004	1N 4005	1N 4006	1N 4007	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V _{RWM}								
DC Blocking Voltage	V _R								
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ T _A = 75 C	I _O	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30							A
Forward Voltage @ I _F = 1.0A	V _{FM}	1.0							V
Peak Reverse Current @ T _A = 25 C	I _{RM}	5.0							A
at Rated DC Blocking Voltage @ T _A = 100 C		50							
Typical Junction Capacitance (Note 2)	C _j	15				8			pF
Typical Thermal Resistance Junction to Ambient	R _{JA}	100							K/W
Maximum DC Blocking Voltage Temperature	T _A	+150							C
Operating and Storage Temperature Range (Note 3)	T _j , T _{STG}	-65 to +175							C

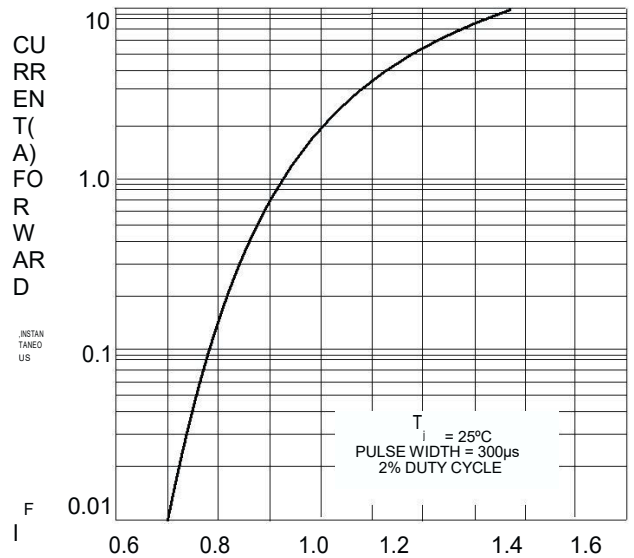
Notes: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.
2. Measured at 1. MHz and applied reverse voltage of 4.0V DC.
3. JEDEC Value.

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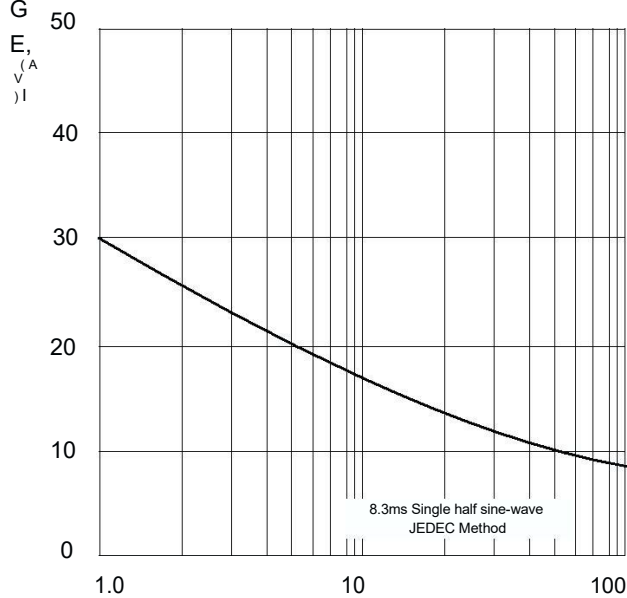
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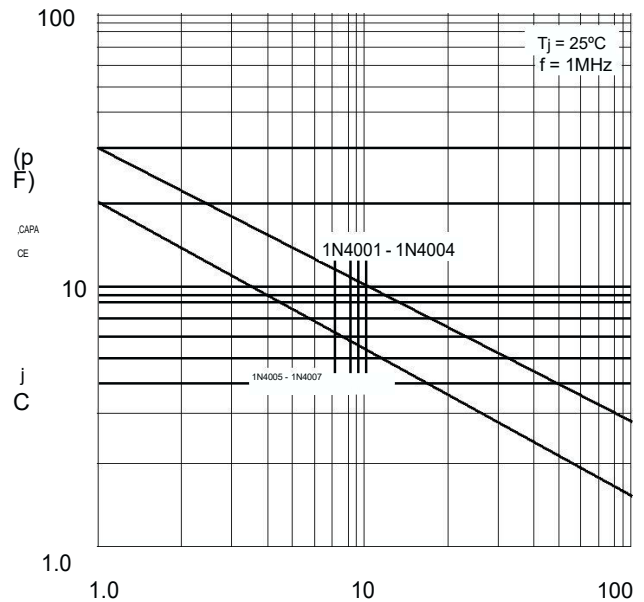
TA, AMBIENT TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



VF, INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60 Hz
Fig. 3 Max Non-Repetitive Peak Fwd Surge Current



VR, REVERSE VOLTAGE (V)
Fig. 4 Typical Junction Capacitance