



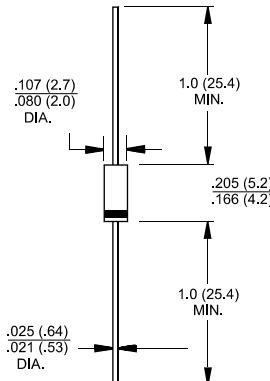
1N4001S THRU 1N4007S

1.0 AMP. Silicon Rectifiers



Voltage Range
50 to 1000 Volts
Current
1.0 Ampere

A-405



Dimensions in inches and (millimeters)

Features

- ◊ Low forward voltage drop
- ◊ High current capability
- ◊ High reliability
- ◊ High surge current capability
- ◊ Ø 0.6mm leads

Mechanical Data

- ◊ Cases: 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
- ◊ High temperature soldering guaranteed: 250°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ◊ Weight: 0.22 gram

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	1N 4001S	1N 4002S	1N 4003S	1N 4004S	1N 4005S	1N 4006S	1N 4007S	Units
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @ $T_A = 75^\circ C$					1.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)					30			A
Maximum Instantaneous Forward Voltage @ 1.0A				1.0				V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=100^\circ C$				5.0	50			uA uA
Maximum Full Load Reverse Current, Full Cycle Average .375"(9.5mm) Lead Length @ $T_A=75^\circ C$				30				uA
Typical Junction Capacitance (Note 1)				15				pF
Typical Thermal Resistance $R_{\theta JA}$ (Note 2)				50				°C/W
Operating and Storage Temperature Range T_J, T_{STG}				-65 to +150				°C

Notes:1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

2. Thermal Resistance from Junction to Ambient .375" (9.5mm) Lead Length.

RATINGS AND CHARACTERISTIC CURVES (1N4001S THRU 1N4007S)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

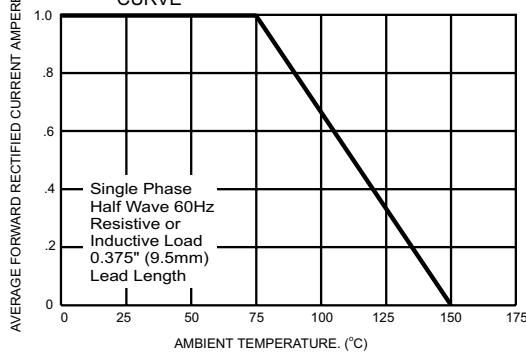


FIG.2- TYPICAL FORWARD CHARACTERISTICS

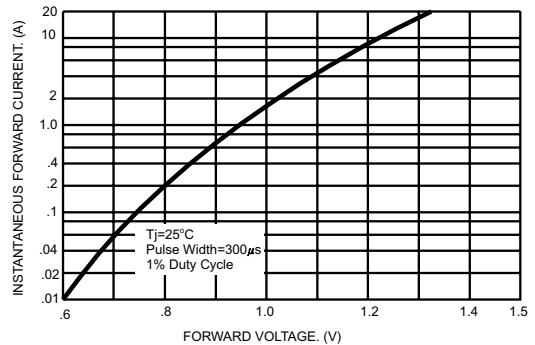


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

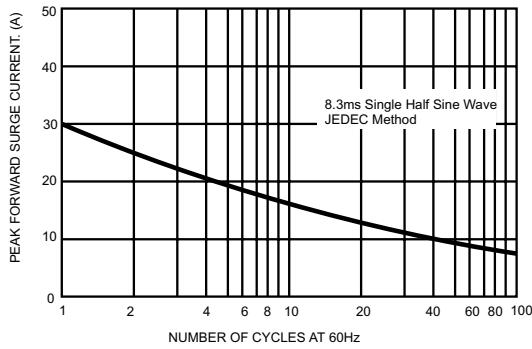


FIG.4- TYPICAL JUNCTION CAPACITANCE

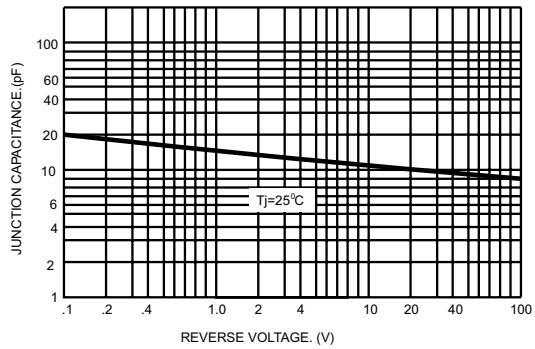


FIG.5- TYPICAL REVERSE CHARACTERISTICS

