

# 1N4001S THRU 1N4007S



康比電子  
HORNBY ELECTRONIC

## GENERAL PURPOSE PLASTIC SILICON RECTIFIER

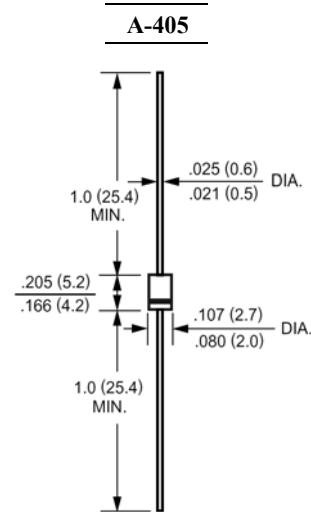
**REVERSE VOLTAGE:** 50 to 1000 VOLTS  
**FORWARD CURRENT:** 1.0 AMPERE

### FEATURES

- Low forward voltage drop
- High current capability
- High capability
- High surge current capability
- Exceeds environmental standards of MIL-S-19500/228

### MECHANICAL DATA

Case: Molded plastic, A-405  
Epoxy: UL 94V-O rate flame retardant  
Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed  
Polarity: Color band denotes cathode end  
Mounting position: Any  
Weight: 0.008ounce, 0.22gram



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

	Symbols	1N4001S	1N4002S	1N4003S	1N4004S	1N4005S	1N4006S	1N4007S	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 Length at $T_A=75^\circ\text{C}$	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	30							Amp
Maximum Forward Voltage at 1.0A DC and 25°C	$V_F$	1.1							Volts
Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	$I_R$	5.0 50							uAmp
Typical Junction Capacitance (Note 1)	$C_J$	15							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	50							°C/W
	$R_{\theta JC}$	27							
Operating Junction Temperature Range	$T_J$	-55 to +150							°C
Storage Temperature Range	$T_{stg}$	-55 to +150							°C

### NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- Units mounted on recommended PCB (5mm x 5mm Cu pad test board)

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### RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

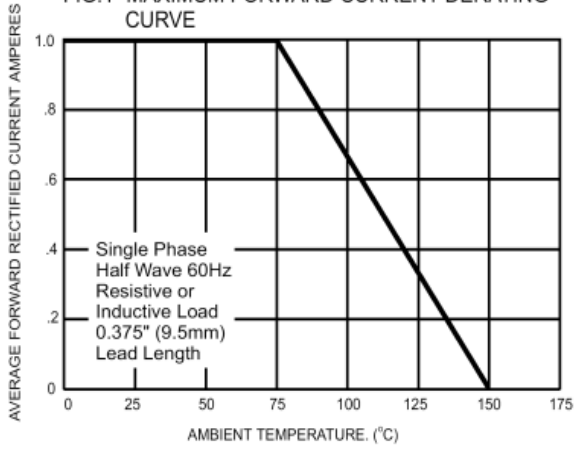


FIG.2- TYPICAL FORWARD CHARACTERISTICS

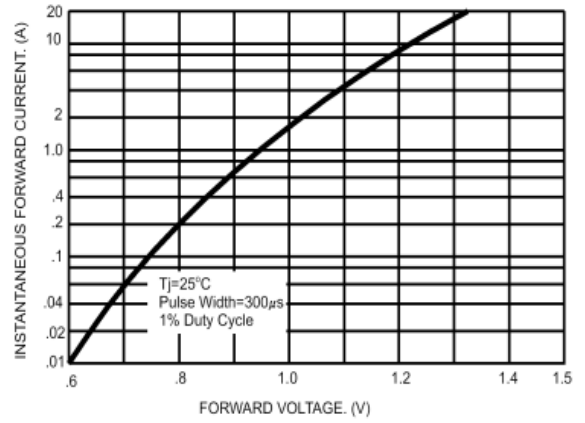


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

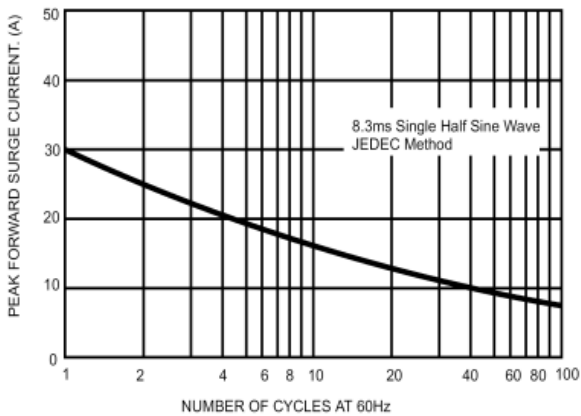


FIG.4- TYPICAL JUNCTION CAPACITANCE

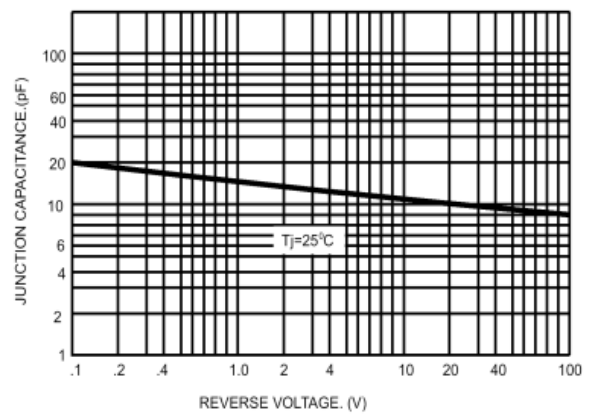


FIG.5- TYPICAL REVERSE CHARACTERISTICS

