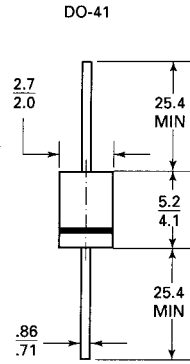


# 1N4001...1N4007 PLASTIC SILICON RECTIFIERS

## FEATURES

- \* Low forward voltage
- \* High current capability
- \* Low leakage current
- \* High surge capability
- \* Low cost



## VOLTAGE RANGE

50 to 1000 Volts

## CURRENT

1.0 Amperes

Dimensions in mm

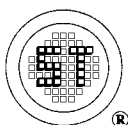
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Single-phase, half-wave, 60 Hz, resistive or inductive load

	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	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 3/8 Lead Length at $T_A = 75^\circ\text{C}$	1.0							A
Maximum Overload Surge 8.3 ms single half sine-wave	50							A
Maximum Forward Voltage at 1.0A AC and $25^\circ\text{C}$	1.0							V
Maximum Full Load Reverse Current, Full Cycle Average at $75^\circ\text{C}$ Ambient*	30							$\mu\text{A}$
Maximum DC Reverse Current at $25^\circ\text{C}$ at Rated DC Blocking Voltage at $75^\circ\text{C}$	5.0 50.0							$\mu\text{A}$ $\mu\text{A}$
Typical Junction Capacitance (Note 1)	30							pF
Operating and Storage Temperature Range	-65 to + 175							$^\circ\text{C}$

### NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of  $4.0 V_{DC}$ .
- \* JEDEC Registered Value.



**SEMTECH ELECTRONICS LTD.**  
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Fig. 1 - TYPICAL FORWARD CHARACTERISTICS

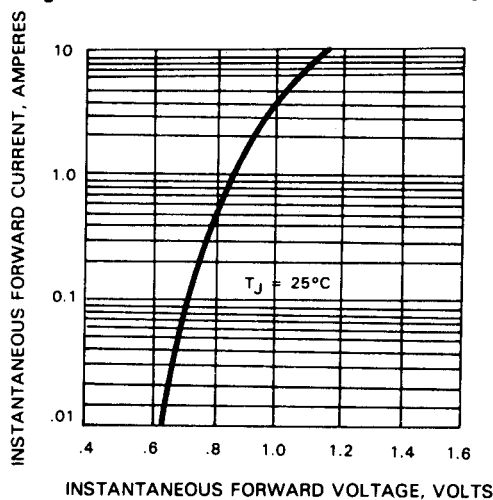


Fig. 2 - PEAK FORWARD SURGE CURRENT

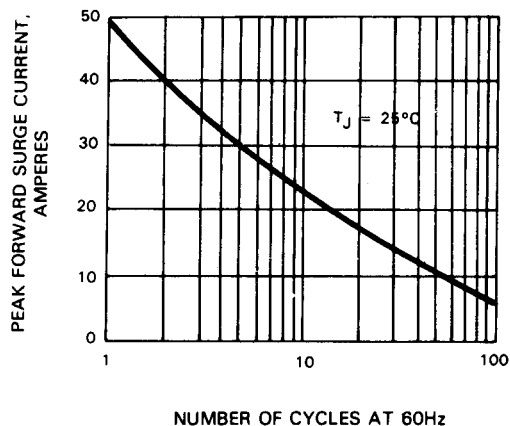


Fig. 3 - FORWARD CURRENT DERATING CURVE

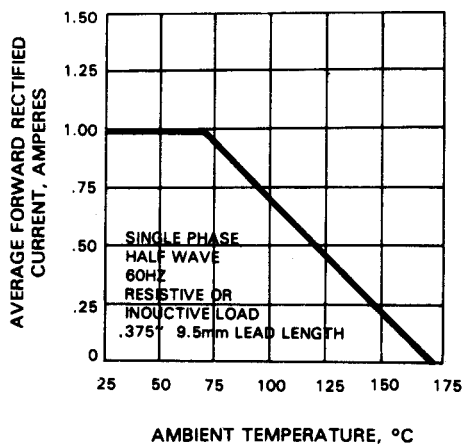


Fig. 4 - TYPICAL JUNCTION CAPACITANCE

