



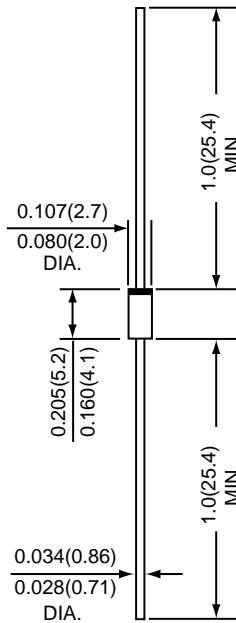
# 1N4001 THRU 1N4007

## SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0 Ampere

**DO-204AL**



\*Dimensions in inches and (millimeters)



### FEATURES

- \* The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- \* Construction utilizes void-free molded plastic technique
- \* Low reverse leakage
- \* High forward surge current capability
- \* High temperature soldering guaranteed : 260°C / 10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case :** JEDEC DO-204AL Molded plastic body  
**Terminals :** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity :** Color band denotes cathode end  
**Mounting Position :** Any  
**Weight :** 0.012 ounce, 0.3 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	1N4001	1N4002	1N4003	1N4004	1N4005	1N4006	1N4007	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at TL=75°C	I(AV)	1.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30							Amps
Maximum instantaneous forward voltage at 1.0 A	VF	1.1							Volts
Maximum full load reverse current, full cycle average 0.375" (9.5mm) lead length at TL=75°C	IR(AV)	30							uA
Maximum DC reverse current at rated DC blocking voltage TA=25°C TA=100°C	IR	5.0 50							uA
Typical junction capacitance 4.0V, 1MHz	CJ	15							pF
Typical thermal resistance	R θJA R θJL	50 25							°C / W
Operating junction and storage temperature range	TJ,TSTG	-65 to +175							°C

# RATINGS AND CHARACTERISTIC CURVES 1N4001 THRU 1N4007

FIG.1 - FORWARD CURRENT DERATING CURVE

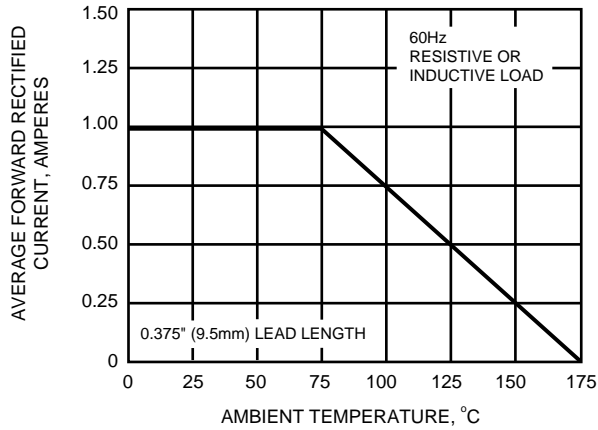


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

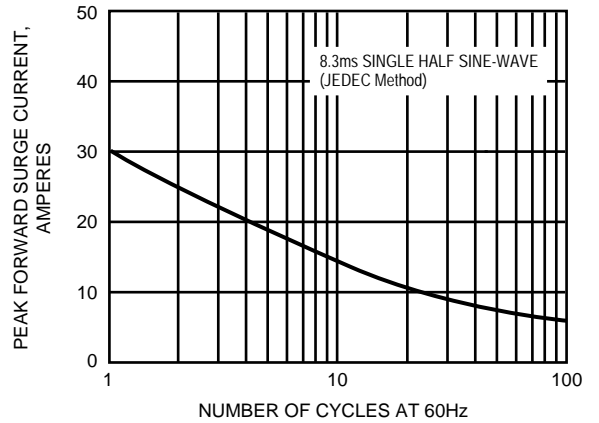


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

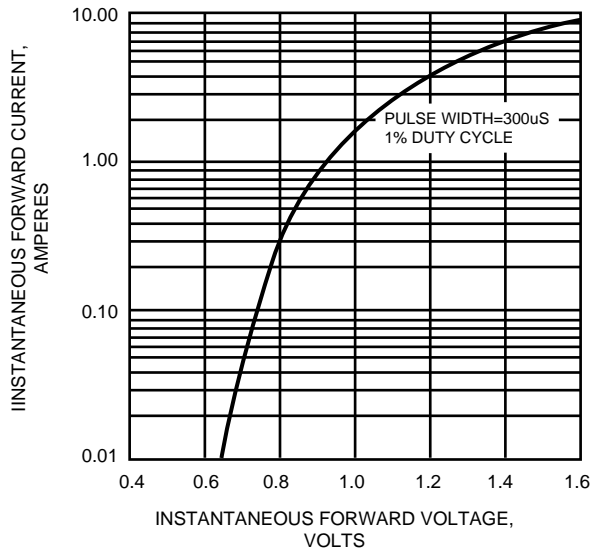


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

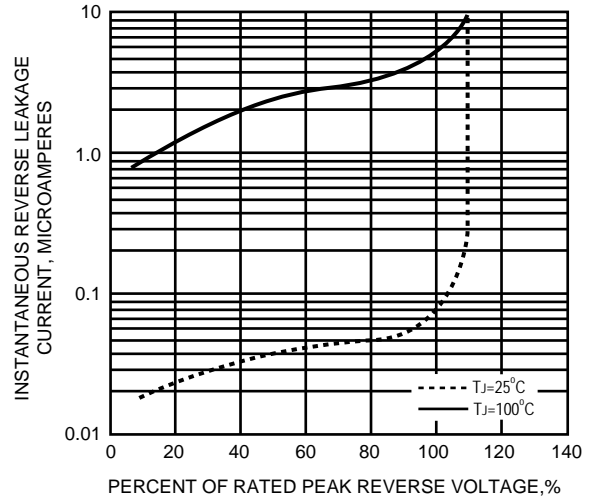


FIG.5 - TYPICAL JUNCTION CAPACITANCE

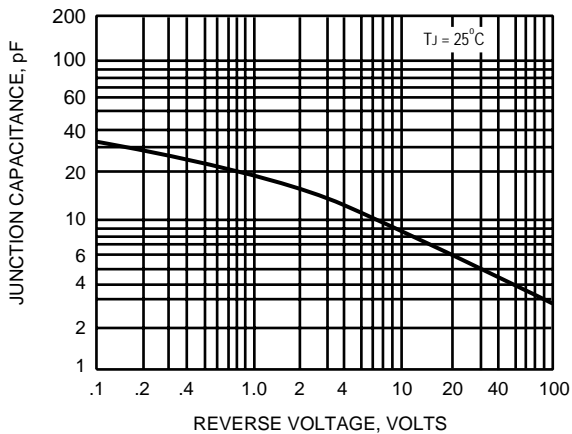


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

