



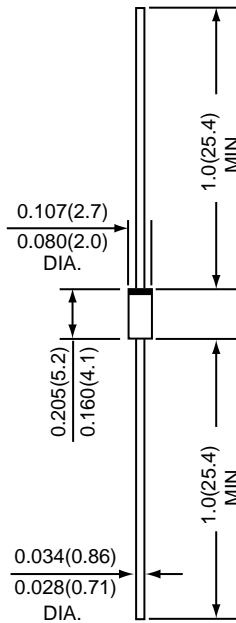
1N4001 THRU 1N4007

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 | 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

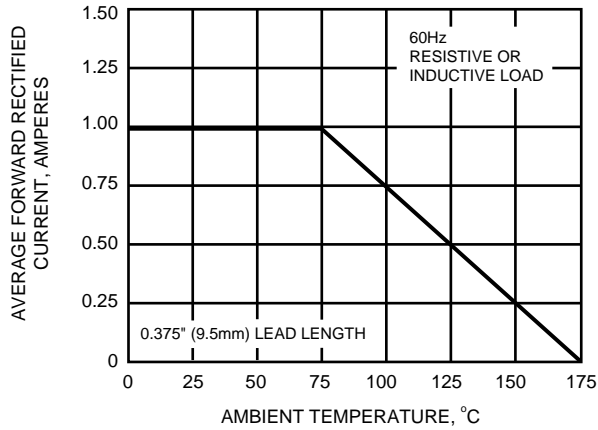


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

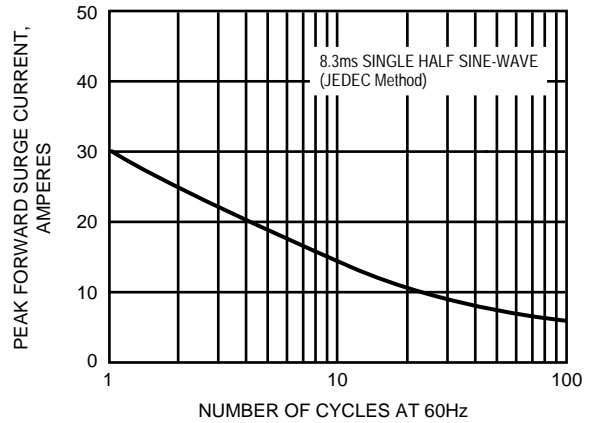


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

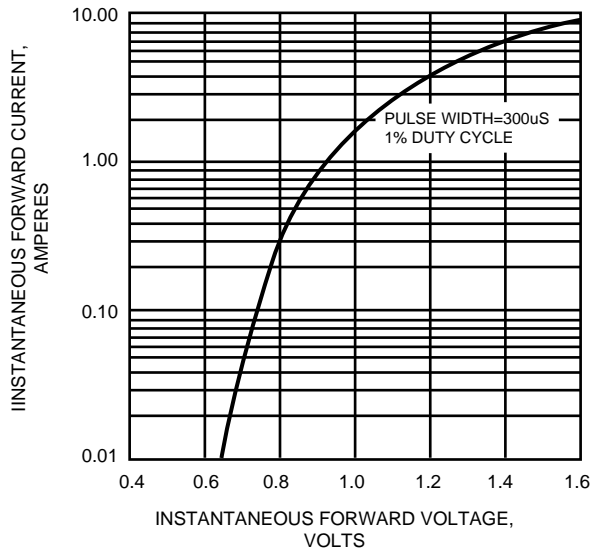


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

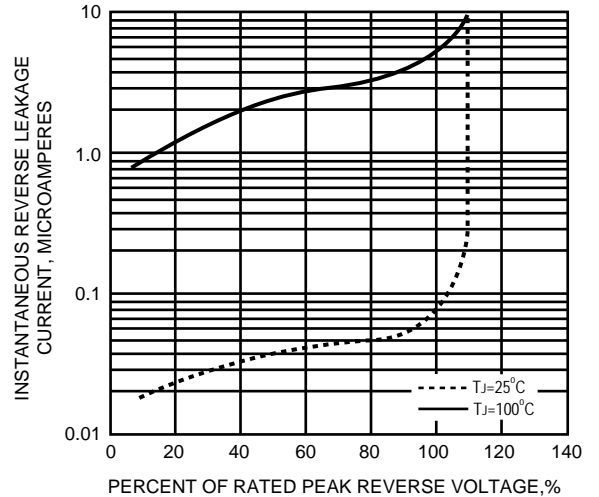


FIG.5 - TYPICAL JUNCTION CAPACITANCE

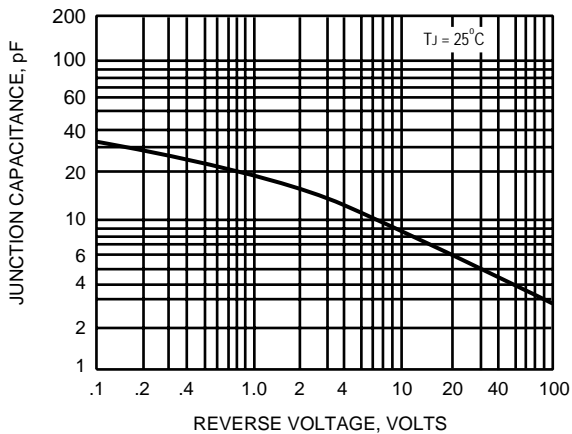


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

