



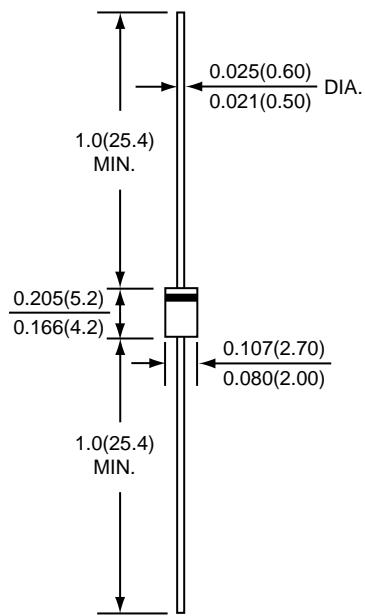
1N4001E THRU 1N4007E

SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0 Ampere

A-405



*Dimensions in inches and (millimeters)



FEATURES

- * High reliability
- * Low reverse leakage
- * Low forward voltage drop
- * High current capability

MECHANICAL DATA

Case : JEDEC A-405 molded plastic
Epoxy : UL 94V-O rate flame retardant
Lead : MIL-STD-202F method 208C guaranteed
Mounting Position : Any
Weight : 0.20 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| Ratings at 25°C ambient temperature unless otherwise specified. | SYMBOLS | 1N4001E | 1N4002E | 1N4003E | 1N4004E | 1N4005E | 1N4006E | 1N4007E | 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 at TA=55°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 TA=25°C at rated DC blocking voltage TA=100°C | IR | | | | | 5.0 | | | uA |
| Typical junction capacitance (NOTE) | CJ | | | | | 50 | | | pF |
| Typical thermal resistance | RθJA | | | | | 50 | | | °C/W |
| Operating junction and storage temperature range | T _{J,TSTG} | | | | -65 to +175 | | | | °C |

NOTES : Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

RATINGS AND CHARACTERISTIC CURVES 1N4001E THRU 1N4007E

FIG.1 - FORWARD CURRENT DERATING CURVE

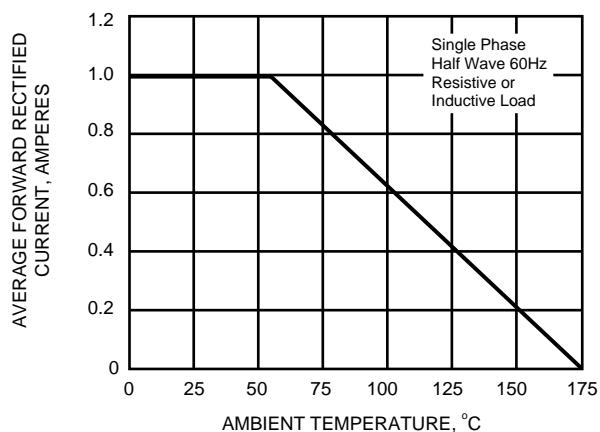


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

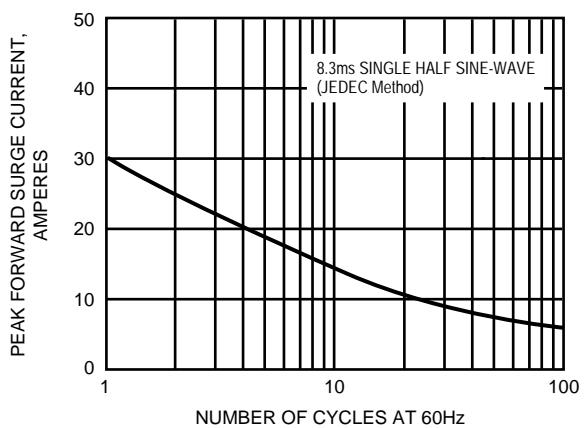


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

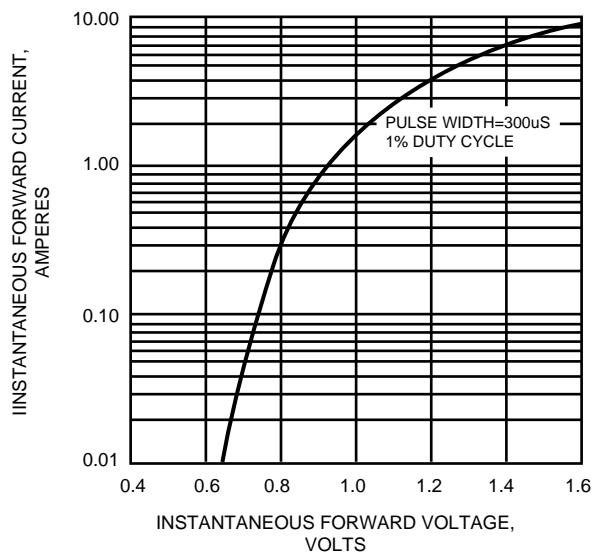


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

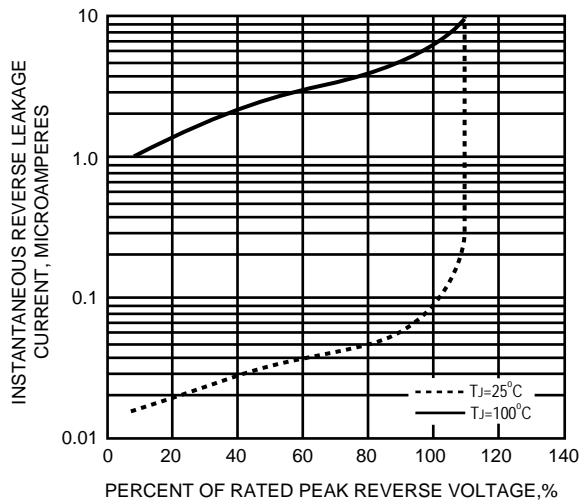


FIG.5 - TYPICAL JUNCTION CAPACITANCE

