

IN4001 thru IN4007

PLASTIC SILICON RECTIFIER



**CHENG-YI
ELECTRONIC**



FEATURE

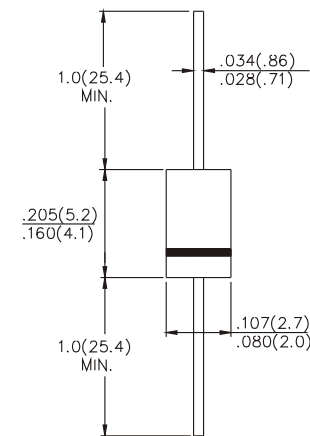
- Low forward voltage
- High current capability
- Low leakage current
- High surge capability
- Low cost

MECHANICAL DATA

- Case: Molded plastic use UL 94V-0 recognized
Flame retardant epoxy
- Terminals: Axial leads, solderable per
MIL-STD-202, method 208
- Polarity: Color band denotes cathode
- Mounting Position: Any

VOLTAGE RANGE 50 TO 1000 Volts
CURRENT 1.0 Ampere

DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| | IN4001 | IN4002 | IN4003 | IN4004 | IN4005 | IN4006 | IN4007 | 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°C | 1.1 | | | | | | | V |
| Maximum Full Load Reverse Current, Full Cycle Average at 75°C Ambient | 30 | | | | | | | μA |
| Maximum DC Reverse Current at 25°C at Rated DC Blocking Voltage at 75°C | 5.0 | | | | | | | μA |
| | 50.0 | | | | | | | μA |
| Typical Junction Capacitance (Note 1) | 30 | | | | | | | pF |
| Operating and Storage Temperature Range | -65 to +175 | | | | | | | $^\circ\text{C}$ |

Notes : 1. Measured at 1.0MHz and applied reverse voltage of 4.0 VDC.

* JEDEC Registered Value.

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RATING AND CHARACTERISTICS CURVES IN4001 THRU IN4007

Fig.1 - TYPICAL REVERSE CHARACTERISTICS

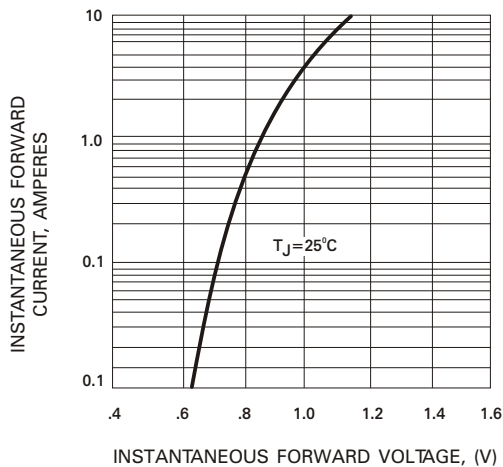


Fig.2 - PAK FORWARD SURGE CURRENT

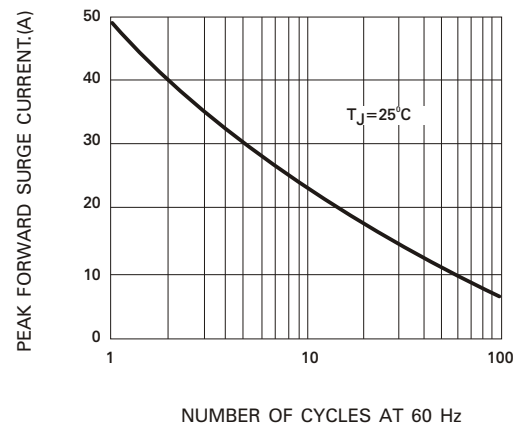


Fig.3 - FORWARD CURRENT DERATING CURVE

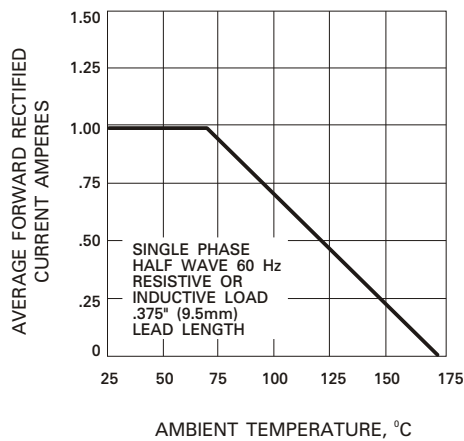


Fig.4 - TYPICAL JUNCTION CAPACITANCE

