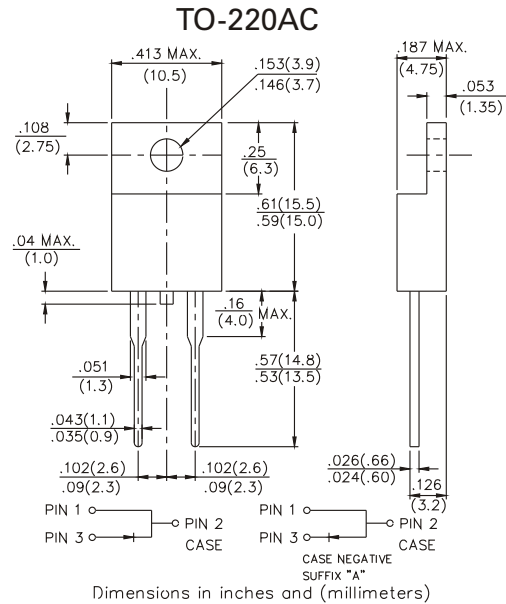


## FEATURES

- Low forward voltage drop
- High Current Capability
- High reliability
- High surge Current Capability
- Good for switching mode application
- High temperature soldering : 260°C/10seconds at terminals
- Pb free product are available : 99% Sn above can meet RoHS
- environment substance directive request

## MECHANICAL DATA

Case : TO220AC Molded plastic  
 Epoxy : UL 94V-0 rate flame retardant  
 Lead : Lead solderable per  
 MIL-STD-202, Method 208 guranteed  
 Polarity : As Marked  
 Mounting Position : Any  
 Weight : 2.24gram



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified  
 Single phase, half wave, 60Hz, resistive or inductive load  
 For capacitive load, derate current by 20%

| PARAMETER  | SF1001      | SF1002 | SF1003 | SF1004 | SF1005 | SF1006 | SF1007 | UNITS |
|--|-------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Repetitive Peak Reverse Voltage  | 50          | 100    | 150    | 200    | 300    | 400    | 600    | Volts |
| Maximum RMS Voltage  | 35          | 70     | 105    | 140    | 210    | 320    | 420    | Volts |
| Maximum DC Blocking Voltage  | 50          | 100    | 150    | 200    | 300    | 400    | 600    | Volts |
| Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length at T <sub>C</sub> =100°C       | 10          |        |        |        |        |        |        | Amps  |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)   | 150         |        |        |        |        |        |        | Amps  |
| Maximum Instantaneous Forward Voltage at 10A   | 0.95        |        |        |        | 1.3    |        | 1.7    | Volts |
| Maximum DC Reverse Current T <sub>A</sub> =25°C at Rated DC Blocking Voltage T <sub>A</sub> =100°C | 10<br>500   |        |        |        |        |        |        | μA    |
| Maximum Reverse Recovery Time (Note 1)   | 35          |        |        |        | 50     |        |        | nS    |
| Typical Junction Capacitance (Note 2)  | 50          |        |        |        |        |        |        | pF    |
| Operating and Storage Temperature Range T <sub>J</sub> ,T <sub>STG</sub>                           | -55 to +150 |        |        |        |        |        |        | °C    |

### NOTES :

1. Reverse Recovery Time test condition I<sub>F</sub>=0.5A , I<sub>R</sub>=1.0A , I<sub>RR</sub>=0.25A
2. Measured at 1.0MHz and applied reverse Voltage of 4.0V D.C

## RATINGS AND CHARACTERISTIC CURVES SF1001 THRU SF1007

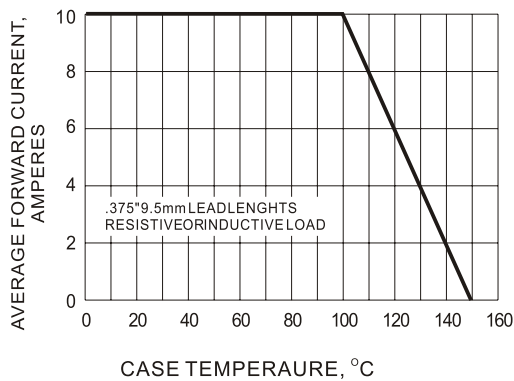


Fig.1- FORWARD CURRENT DERATING CURVE

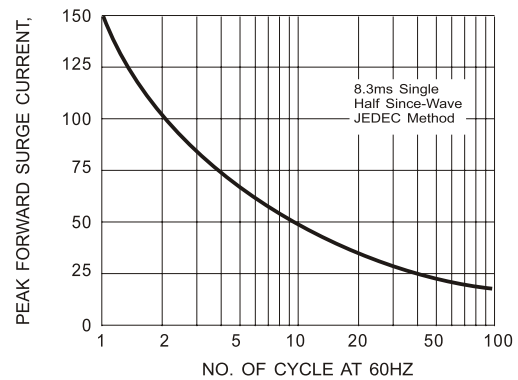


Fig.4- TMAXIMUM NON - REPETITIVE SURGE CURRENT

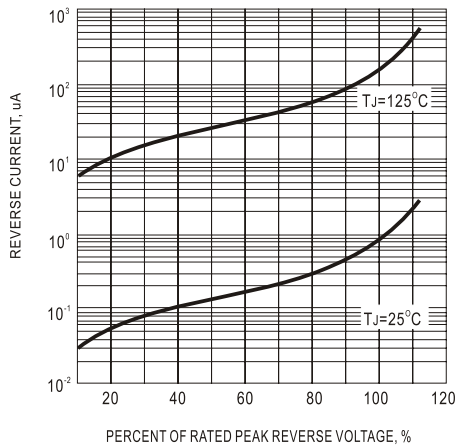


Fig.3- TYPICAL REVERSE CHARACTERISTIC

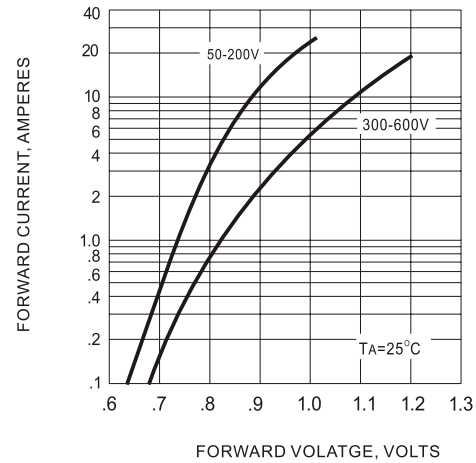


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC