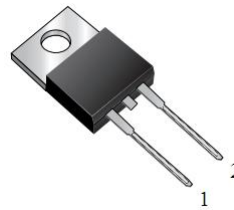


SF1008&SF1008F

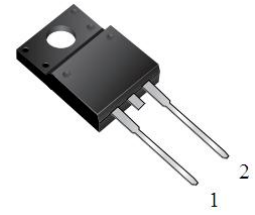
10.0AMPS. SUPERFAST RECOVERY RECTIFIER

FEATURE

- . Low forward voltage drop
- . High current capability
- . High reliability
- . High surge current capability
- . Epitaxial construction
- . High temperature soldering guaranteed
260°C /10seconds, 0.25"(6.35mm)from case.



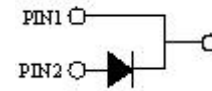
TO-220AC
SF1008



ITO-220AC
SF1008F

MECHANICAL DATA

- . Case: Molded with UL-94 Class V-0 recognized
Flame Retardant Epoxy
- . Mounting position: any



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

For capacitive load, derate current by 20%

MAXIMUM RATINGS (T_C=25°C unless otherwise noted)

| Parameter | Symbol | SF1008&SF1008F | Units |
|---|----------------|----------------|-------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 600 | V |
| Maximum RMS Voltage | V_{RMS} | 420 | V |
| Maximum DC blocking Voltage | V_{DC} | 600 | V |
| Maximum Average Forward Rectified Current at T _C =100°C <i>Total device</i> | $I_{F(AV)}$ | 10.0 | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 100.0 | A |
| Maximum Reverse Recovery Time (Note 1) | t_{rr} | 35 | nS |
| Typical Junction Capacitance (Note 2) | C_J | 60 | pF |
| Operation Junction Temperature and Storage Temperature | T_J, T_{STG} | -55 to +150 | °C |

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

| Parameter | Symbol | Typ | Max | Units |
|--|--------|------|-------|-------|
| Maximum Forward Voltage (<i>Per Leg</i>) at 10.0A DC | V_F | 1.50 | 1.70 | V |
| Maximum DC Reverse Current @T _A =25°C | I_R | ---- | 10.0 | μA |
| at rated DC blocking voltage @T _A =100°C | | ---- | 400.0 | |

THERMAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

| Parameter | Symbol | SF1008 | SF1008F | Units |
|-------------------------------------|------------|--------|---------|-------|
| Typical Thermal Resistance (Note 3) | $R_{(JC)}$ | 2.5 | 3.5 | °C/W |

Notes:

1. Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance From Junction to Case

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

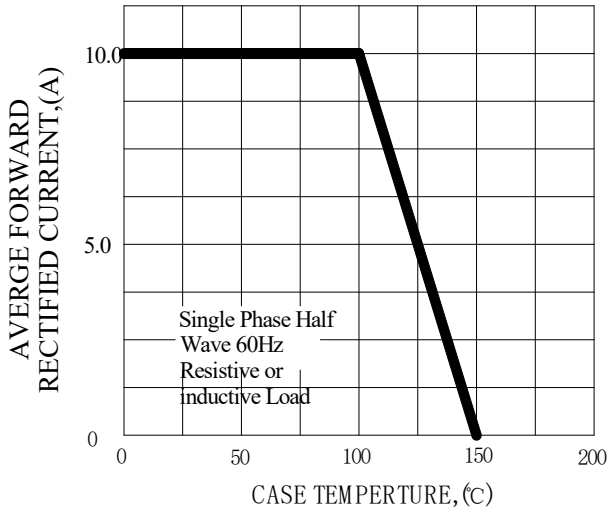


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

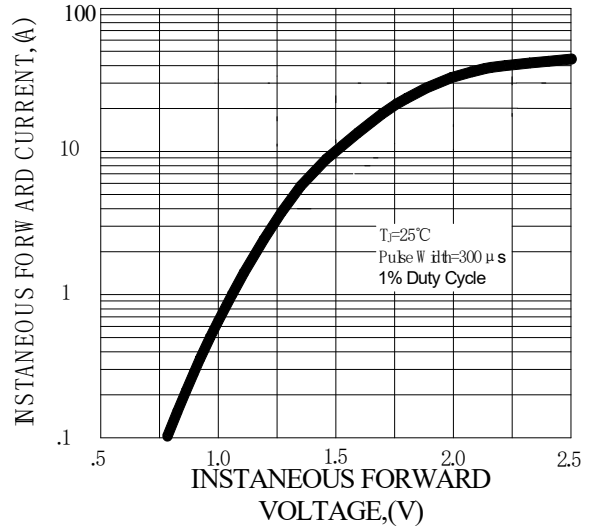


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

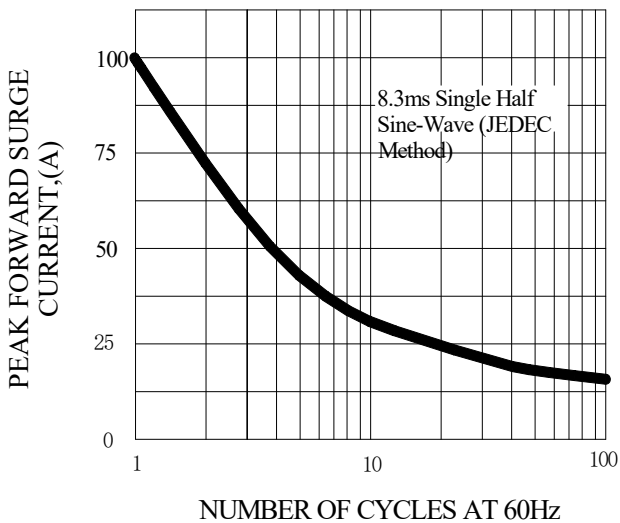


FIG.4-TYPICAL REVERSE CHARACTERISTICS

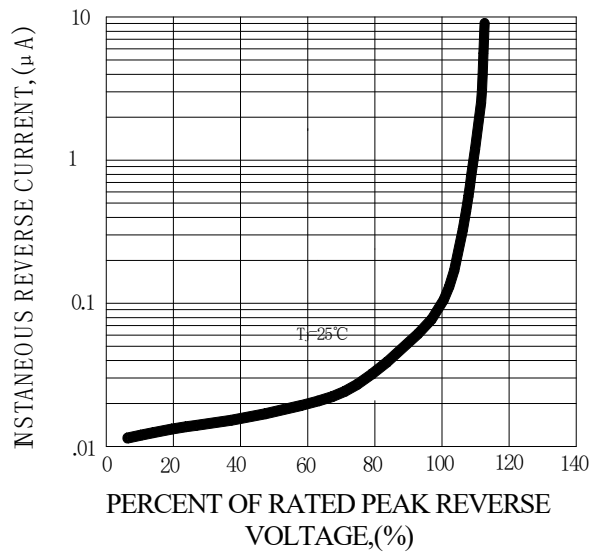
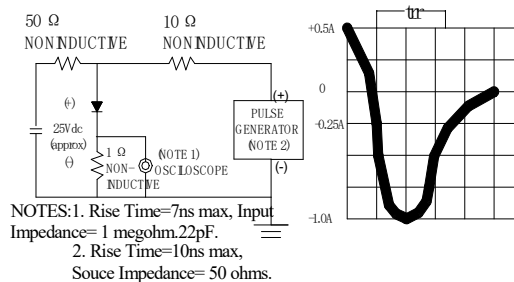
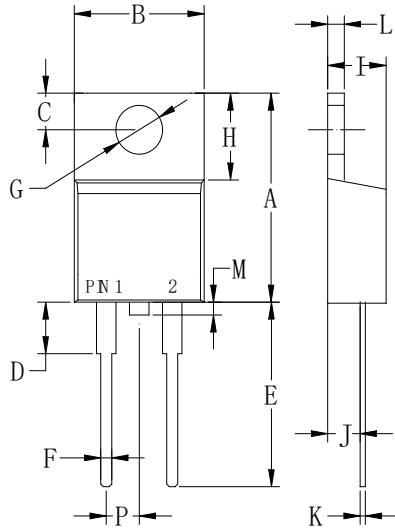


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



PACKAGE OUTLINE DIMENSIONS

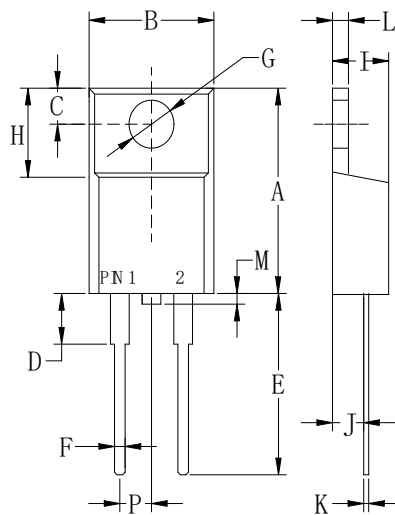
TO-220AC



| TO-220AC | | |
|----------|--------------|--------------|
| Dim | Min | Max |
| A | .573 (14.55) | .603 (15.32) |
| B | — | .412 (10.5) |
| C | .103 (2.62) | .113 (2.87) |
| D | .140 (3.56) | .160 (4.06) |
| E | .510 (13.0) | .560 (14.3) |
| F | .027 (0.68) | .037 (0.94) |
| G | .148 (3.74) | .154 (3.91) |
| H | .230 (5.84) | .270 (6.86) |
| I | .175 (4.44) | .185 (4.86) |
| J | .100 (2.54) | .110 (2.79) |
| K | .014 (0.35) | .025 (0.64) |
| L | .045 (1.14) | .055 (1.40) |
| M | — | .063 (1.60) |
| P | .095 (2.41) | .105 (2.67) |

Dimensions in inches and (millimeters)

ITO-220AC

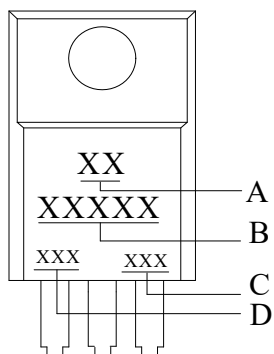


| ITO-220AC | | |
|-----------|-------------|-------------|
| Dim | Min | Max |
| A | .571 (14.5) | .610 (15.5) |
| B | .383 (9.72) | .406 (10.3) |
| C | .110 (2.80) | .126 (3.20) |
| D | .133 (3.38) | .162 (4.10) |
| E | .512 (13.0) | .551 (14.0) |
| F | .028 (0.70) | .035 (0.90) |
| G | .114 (2.90) | .138 (3.50) |
| H | .268 (6.80) | .291 (7.40) |
| I | .162 (4.10) | .185 (4.70) |
| J | .102 (2.60) | .110 (2.80) |
| K | .018 (0.45) | .026 (0.65) |
| L | .097 (2.46) | .113 (2.86) |
| M | — | .063 (1.60) |
| P | .890 (2.25) | .113 (2.85) |

Dimensions in inches and (millimeters)

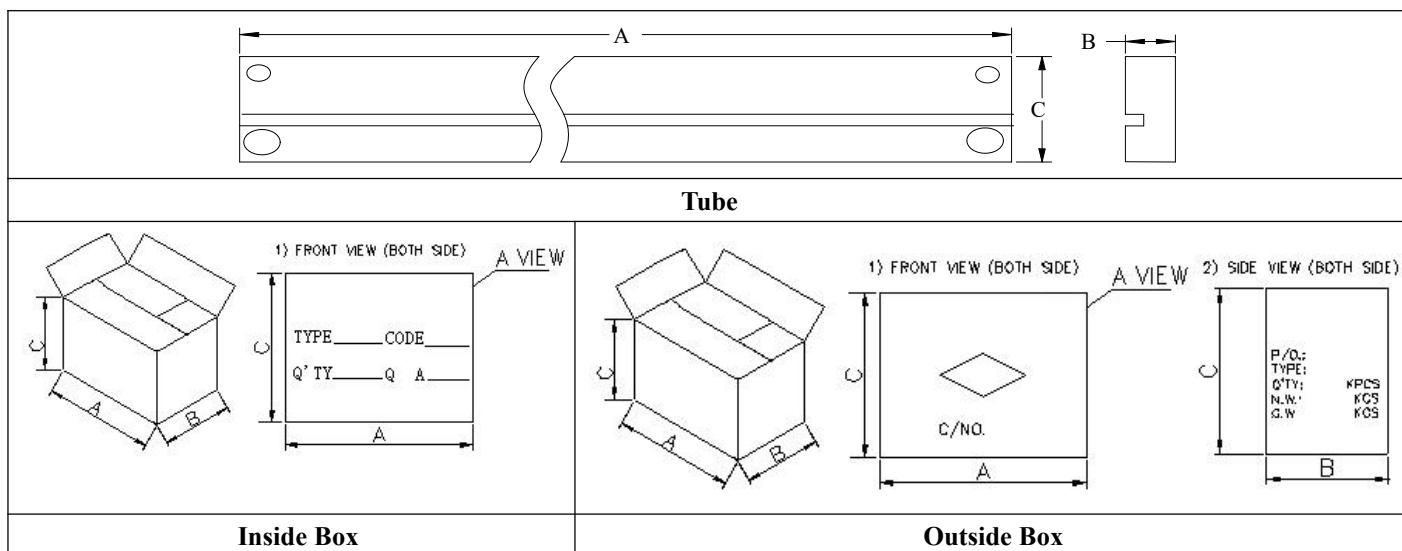
Marking and packaging illustration

1、Marking



| SYMBOL | Explanation |
|----------|---------------------|
| A | Trademark |
| B | Product Name |
| C | Date Code |
| D | Product Information |

2、Packaging



| 类别 | A (mm) | B (mm) | C (mm) |
|------------------------------------|--------|--------|--------|
| T0-220 Tube (50EA per tube) | 530±5 | 7±0.8 | 33±1 |
| T0-220 Inside Box (1K per box) | 542±5 | 82±2 | 78±1 |
| T0-220 outside Box (6K per box) | 555±5 | 285±5 | 245±5 |