



SRAF1020 THRU SRAF1090

Isolation 10.0 AMPS. Schottky Barrier Rectifiers



Voltage Range
20 to 90 Volts
Current
10.0 Amperes

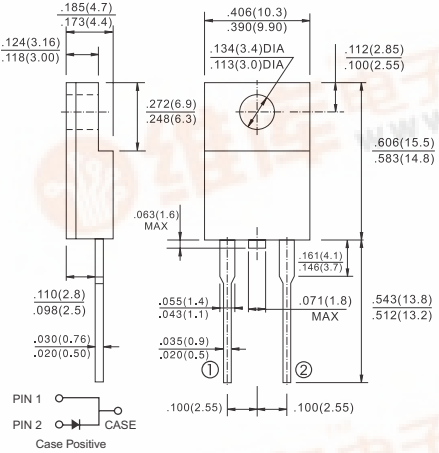
Features

- ✧ Low forward voltage drop
- ✧ High current capability
- ✧ High reliability
- ✧ High surge current capability

Mechanical Data

- ✧ Cases: ITO-220AC molded plastic
- ✧ Epoxy: UL 94V-O rate flame retardant
- ✧ Terminals: Lead solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/ .25", (6.35mm) from case.
- ✧ Weight: 2.24 grams
- ✧ Mounting torque: 5 in – 1 lbs. max.

ITO-220AC



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

| Type Number | Symbol | SRAF 1020 | SRAF 1030 | SRAF 1040 | SRAF 1050 | SRAF 1060 | SRAF 1090 | Units | |
|--|-----------------|-------------|-----------|-----------|-------------|-----------|-----------|----------|----|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 90 | V | |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 63 | V | |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 90 | V | |
| Maximum Average Forward Rectified Current @ $T_c=110^\circ\text{C}$ | $I_{(AV)}$ | 10.0 | | | | | | A | |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 250 | | | | | | A | |
| Maximum Instantaneous Forward Voltage 10.0A | V_F | 0.55 | | 0.70 | | 0.75 | | V | |
| Maximum D.C. Reverse Current @ $T_c=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_c=100^\circ\text{C}$ | I_R | 1.0 | | | 50 | | | mA mA | |
| Typical Thermal Resistance (Note 1) | $R_{\theta JC}$ | 4.0 | | | | | | °C/W | |
| Typical Junction Capacitance (Note 2) | C_j | 420 | | | 280 | | 165 | | pF |
| Operating Junction Temperature Range | T_J | -65 to +125 | | | -65 to +150 | | | °C | |
| Storage Temperature Range | T_{STG} | -65 to +150 | | | | | | °C | |

Notes: 1. Thermal Resistance from Junction to Case Per Leg

2. Measured at 1MHz and Applied Reverse Voltage of 4.0V D.C.

3. Mounted on Heatsink Size of 2 in x 3 in x 0.25 in Al-Plate.





RATINGS AND CHARACTERISTIC CURVES (SRAF1020 THRU SRAF1090)

FIG.1- FORWARD CURRENT DERATING CURVE

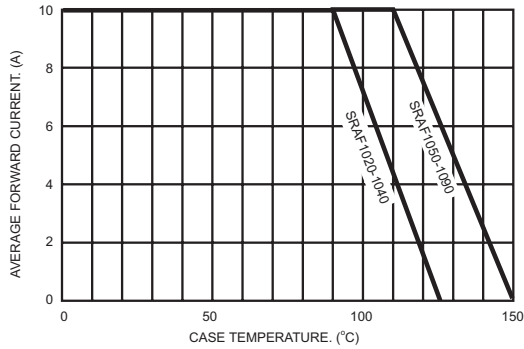


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

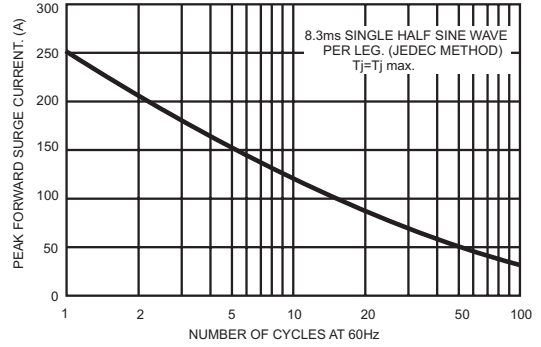


FIG.3- TYPICAL REVERSE CHARACTERISTICS

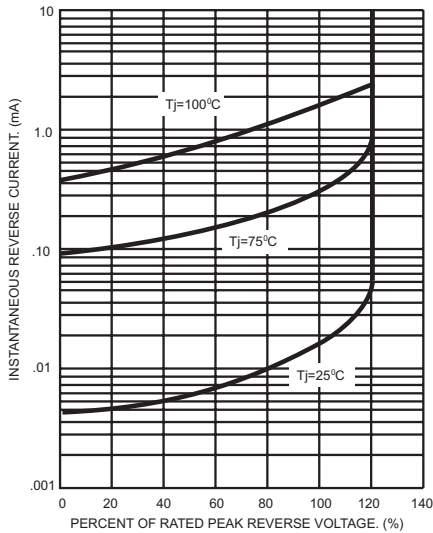


FIG.4- TYPICAL FORWARD CHARACTERISTICS

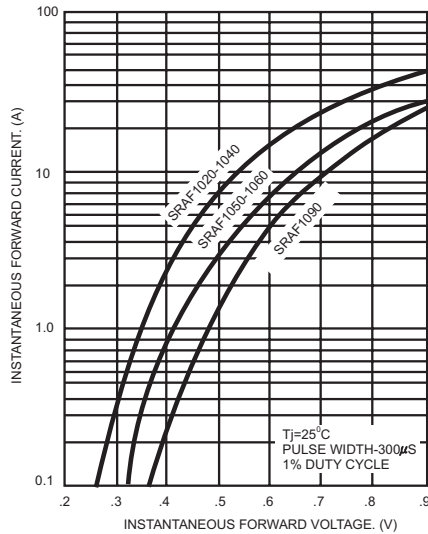


FIG.5- TYPICAL JUNCTION CAPACITANCE

