

**SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 to 60 Volts CURRENT 10 Amperes**

**FEATURES**

- \* Low switching noise
- \* Low forward voltage drop
- \* Low thermal resistance
- \* High current capability
- \* High switching capability
- \* High surge capability
- \* High reliability

**MECHANICAL DATA**

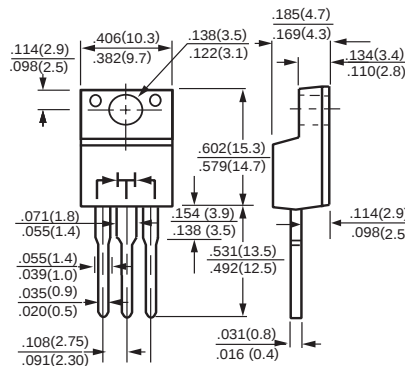
- \* Case: ITO-220 molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 2.24 grams

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings 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%.



**ITO-220**



**MAXIMUM RATINGS** (At TA = 25°C unless otherwise noted)

| RATINGS                                                                                              | SYMBOL | ISR1020C     | ISR1030C | ISR1035C | ISR1040C | ISR1045C | ISR1050C | ISR1060C | UNITS |
|------------------------------------------------------------------------------------------------------|--------|--------------|----------|----------|----------|----------|----------|----------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                               | VRRM   | 20           | 30       | 35       | 40       | 45       | 50       | 60       | Volts |
| Maximum RMS Voltage                                                                                  | VRMS   | 14           | 21       | 25       | 28       | 32       | 35       | 42       | Volts |
| Maximum DC Blocking Voltage                                                                          | VDC    | 20           | 30       | 35       | 40       | 45       | 50       | 60       | Volts |
| Maximum Average Forward Rectified Current<br>at Derating Case Temperature                            | IO     | 10           |          |          |          |          |          |          | Amps  |
| Peak Forward Surge Current 8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | IFSM   | 150          |          |          |          |          |          |          | Amps  |
| Typical Thermal Resistance (Note 1)                                                                  | RθJC   | 3            |          |          |          |          |          |          | °C/W  |
| Typical Junction Capacitance (Note 3)                                                                | CJ     | 700          |          |          |          |          | 500      |          | pF    |
| Operating Temperature Range                                                                          | TJ     | -55 to + 150 |          |          |          |          |          |          | °C    |
| Storage Temperature Range                                                                            | TSTG   | -55 to + 150 |          |          |          |          |          |          | °C    |

**ELECTRICAL CHARACTERISTICS** (At TA = 25°C unless otherwise noted)

| CHARACTERISTICS                                                 | SYMBOL | ISR1020C | ISR1030C | ISR1035C | ISR1040C | ISR1045C | ISR1050C | ISR1060C | UNITS |
|-----------------------------------------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|-------|
| Maximum Instantaneous Forward Voltage at 8.0A DC                | VF     | .65      |          |          |          |          | .75      |          | Volts |
| Maximum Average Reverse Current<br>at Rated DC Blocking Voltage | IR     | 10       |          |          |          |          | 100      |          | mAmps |
|                                                                 |        |          |          |          |          |          |          |          | mAmps |

NOTES : 1. Thermal Resistance Junction to Case.  
2. Suffix "A" = Common Anode.  
3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

## RATING AND CHARACTERISTIC CURVES ( ISR1020C THRU ISR1060C )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

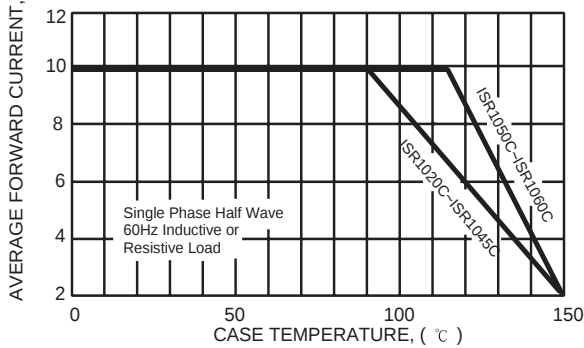


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

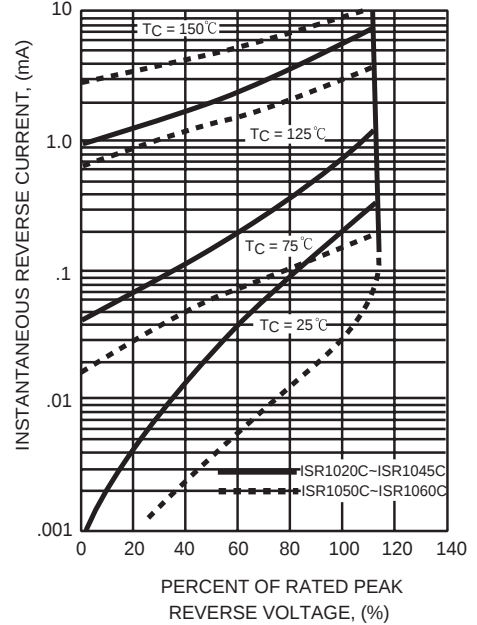


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

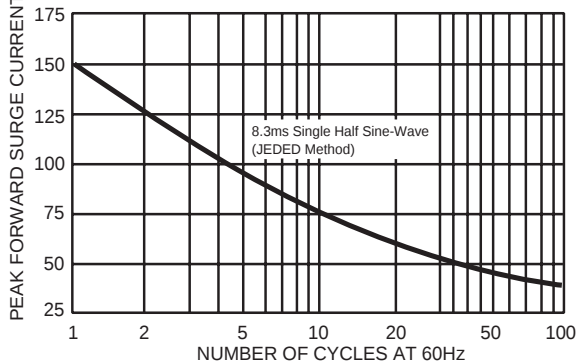


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

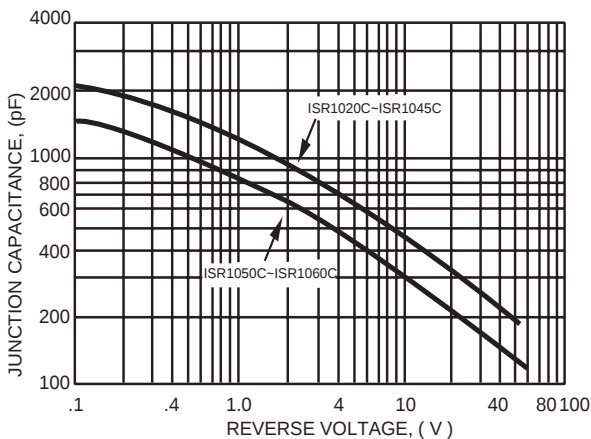


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

