RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

# ISR20100A

## *SCHOTTKY BARRIER RECTIFIER*

***VOLTAGE 100 Volts  CURRENT 20 Amperes***

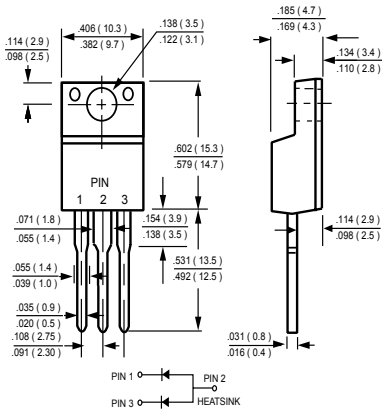
### FEATURES

* Low switching noise
* Low forward voltage drop
* Low thermal resistance
* High current capability
* High switching capability
* High surge capabitity
* 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

**ITO-220**




Dimensions in inches and (millimeters)

### 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%.

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

| RATINGS | SYMBOL | ISR20100A | UNITS |
|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 100 | Volts |
| Maximum RMS Voltage | $V_{RMS}$ | 70 | Volts |
| Maximum DC Blocking Voltage | $V_{DC}$ | 100 | Volts |
| Maximum Average Forward Rectified Current at Derating Case Temperature | $I_O$ | 20 | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$ | 150 | Amps |
| Typical Thermal Resistance (Note 1) | $R_{\theta JC}$ | 3 | °C/W |
| Typical Junction Capacitance (Note 3) | $C_J$ | 500 | pF |
| Operating Temperature Range | $T_J$ | 150 | °C |
| Storage Temperature Range | $T_{STG}$ | -55 to + 150 | °C |

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

| CHARACTERISTICS | | SYMBOL | ISR20100A | UNITS |
|---|---|---|---|---|
| Maximum Instantaneous Forward Voltage at 10.0A DC | | $V_F$ | .85 | Volts |
| Maximum Average Reverse Current | @$T_A$ = 25°C | $I_R$ | 1.0 | mAmps |
| at Rated DC Blocking Voltage | @$T_A$ = 100°C | | 100 | mAmps |

NOTES : 1. Thermal Resistance: Heat-sink mounted.
2. Suffix “C” = Common Cathode.
3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
4. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2007-1

# RATING AND CHARACTERISTICS CURVES ( ISR20100A )

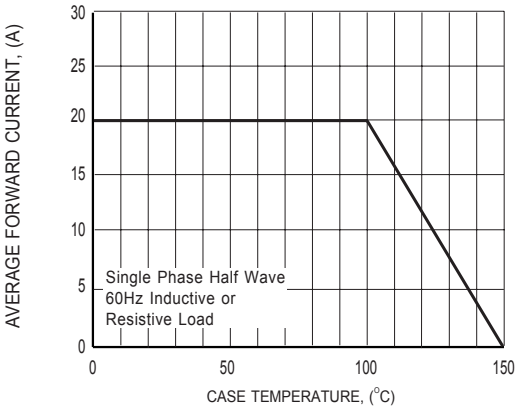



FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

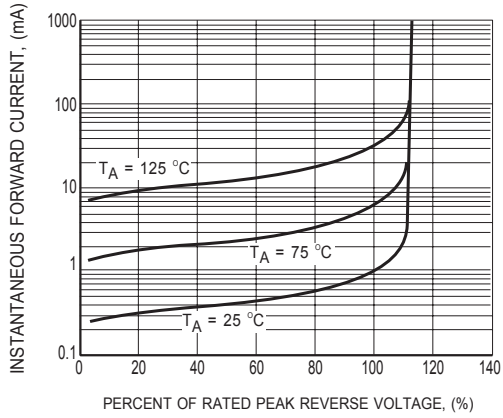



FIG.2 TYPICAL REVERSE CHARACTERISTICS

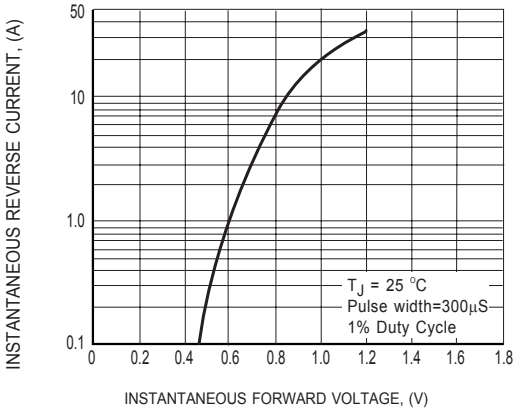



FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

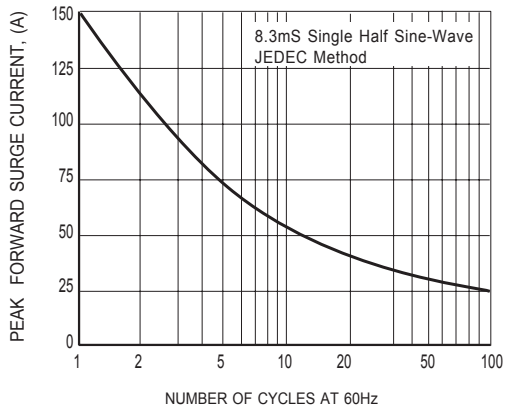



FIG.4 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

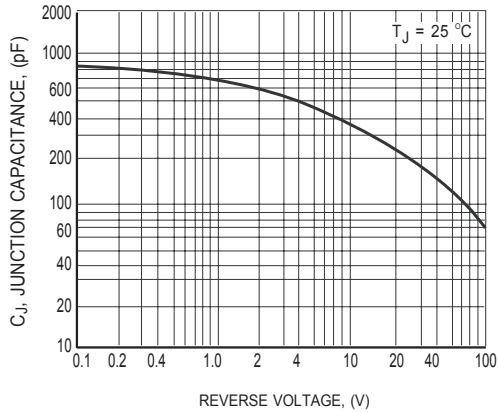



FIG.5 TYPICAL JUNCTION CAPACITANCE

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