

RECTRON

SEMICONDUCTOR

TECHNICAL SPECIFICATION

ISR10100

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 100 Volts CURRENT 10 Amperes

FEATURES

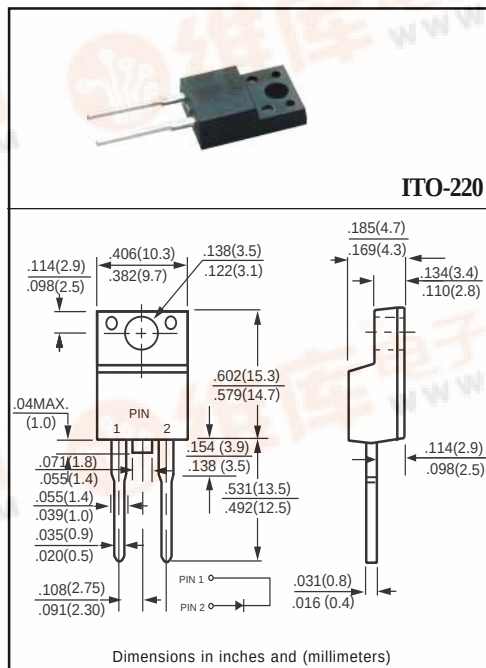
- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High switching capability
- * High surge capability
- * High reliability

MECHANICAL DATA

- * Case: ITO-220 molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * 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%.



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

RATINGS	SYMBOL	ISR10100	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	100	Volts
Maximum RMS Voltage	VRMS	70	Volts
Maximum DC Blocking Voltage	VDC	100	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	IO	10	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	150	Amps
Typical Thermal Resistance (Note 1)	RθJC	3	°C/W
Typical Junction Capacitance (Note 3)	CJ	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	ISR10100	UNITS
Maximum Instantaneous Forward Voltage at 10.0A DC	VF	.80	Volts
Maximum Average Reverse Current @Tc = 25°C	IR	190	uAmps
at Rated DC Blocking Voltage @Tc = 125°C		15	mAmps

NOTES: 1. Thermal Resistance Junction to Case.

2. Suffix "A" = Common Anode.

RATING AND CHARACTERISTIC CURVES (ISR10100)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

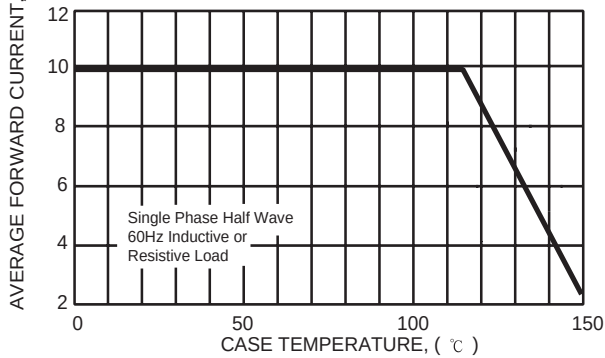


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

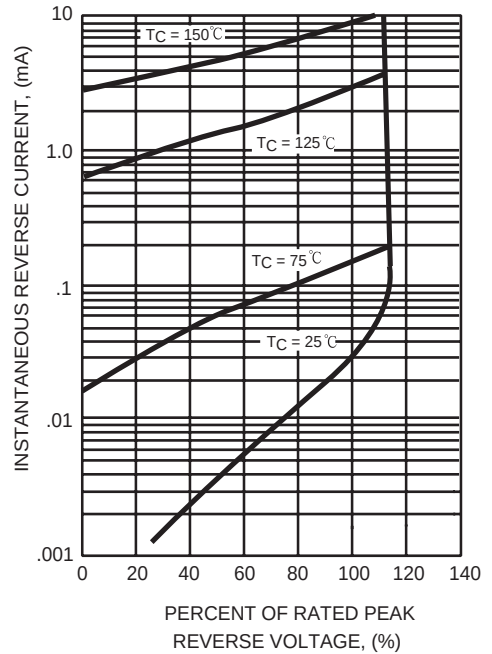


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

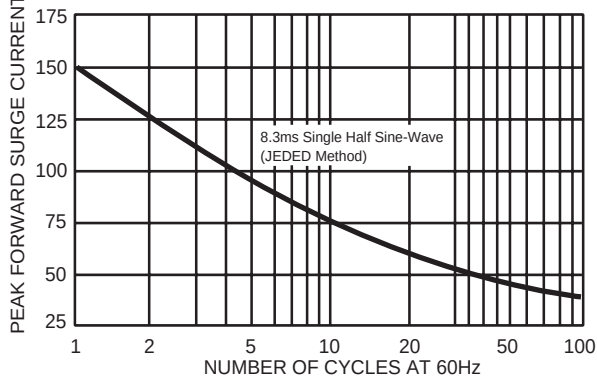


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

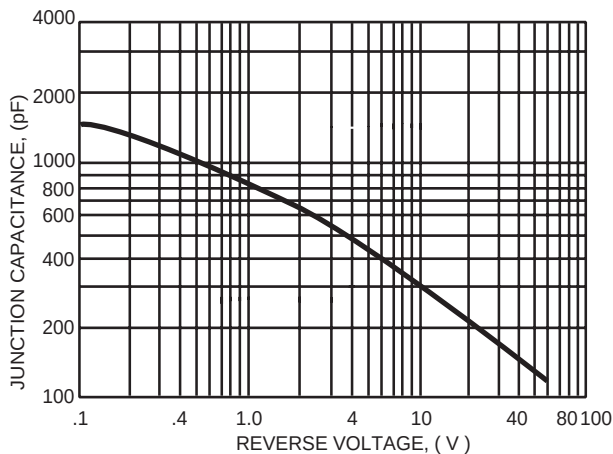


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

