RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

ISR10100

SCHOTTKY BARRIER RECTIFIER

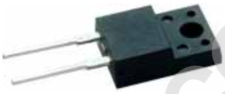
VOLTAGE RANGE 100 Volts CURRENT 10 Amperes

FEATURES

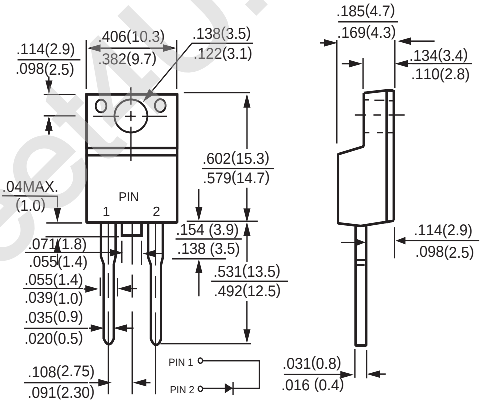
- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High switching capability
- * High surge capability
- * High reliability

MECHANICAL DATA

- * Case: ITo-220 molded plastic
- * Epoxy: Device has UL flammability classification 94V-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	ISR10100	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	10	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	-55 to + 150	°C
Storage Temperature Range	T_{STG}	-55 to + 150	°C

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

CHARACTERISTICS		SYMBOL	ISR10100	UNITS
Maximum Instantaneous Forward Voltage at 10.0A DC		V_F	.80	Volts
Maximum Average Reverse Current	@T_C = 25°C	I_R	190	uAmps
at Rated DC Blocking Voltage	@T_C = 125°C		15	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.
4 “Fully ROHS compliant”, “100% Sn plating (Pb-free)”.

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RATING AND CHARACTERISTIC CURVES (ISR10100)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

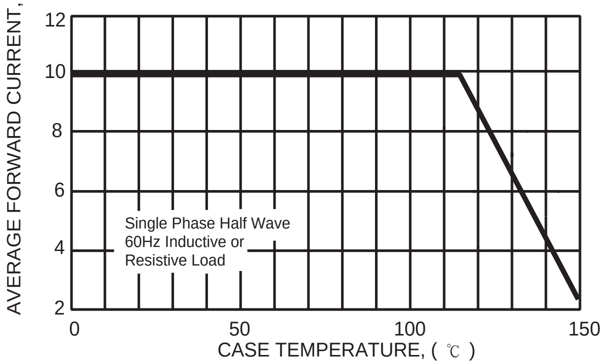

FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

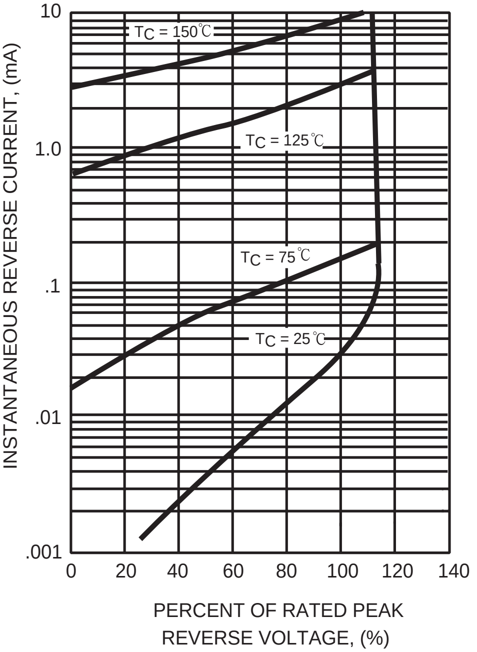

FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

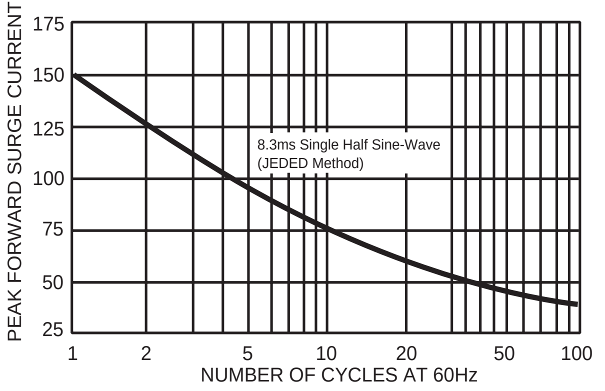

FIG. 4 - TYPICAL JUNCTION CAPACITANCE

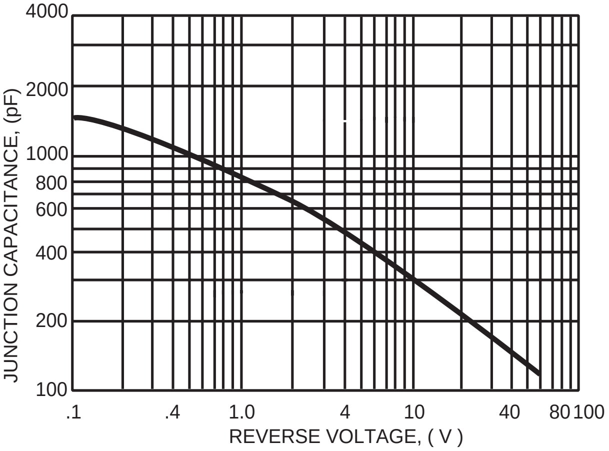

FIG. 5 - TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS