

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 20 to 60 Volts CURRENT 8.0 Amperes

FEATURES

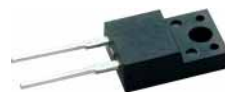
- * Low switching noise
- * Low forward voltage drop
- * Low thermal resistance
- * High current capability
- * High surge capability
- * High reliability

MECHANICAL DATA

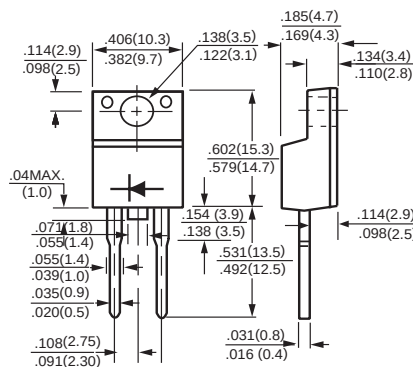
- * Case: ITO-220A molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 2.24 grams

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-220A



MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	ISR820	ISR830	ISR835	ISR840	ISR845	ISR850	ISR860	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	35	40	45	50	60	Volts
Maximum RMS Voltage	V_{RMS}	14	21	25	28	32	35	42	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	35	40	45	50	60	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	I_O	8.0							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)	$R_{\theta JC}$	2.5							$^\circ\text{C/W}$
Typical Junction Capacitance (Note 3)	C_J	700					450		pF
Operating Temperature Range	T_J	-55 to + 150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150							$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	ISR820	ISR830	ISR835	ISR840	ISR845	ISR850	ISR860	UNITS
Maximum Instantaneous Forward Voltage at 8.0A DC	V_F	.65					.75		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	I_R	5.0					mAmps		
		50					mAmps		

NOTES : 1. Thermal Resistance Junction to Case.
2. Suffix "R" for Reverse Polarity.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (ISR820 THRU ISR860)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

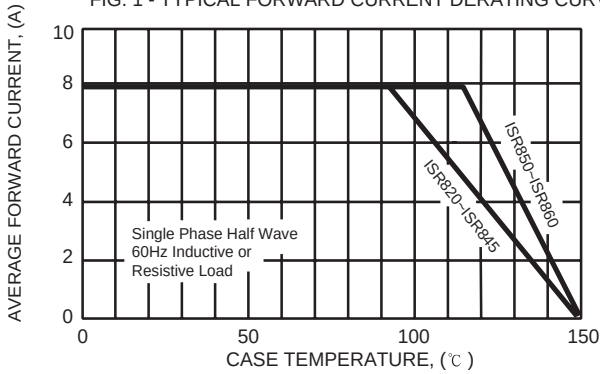


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS

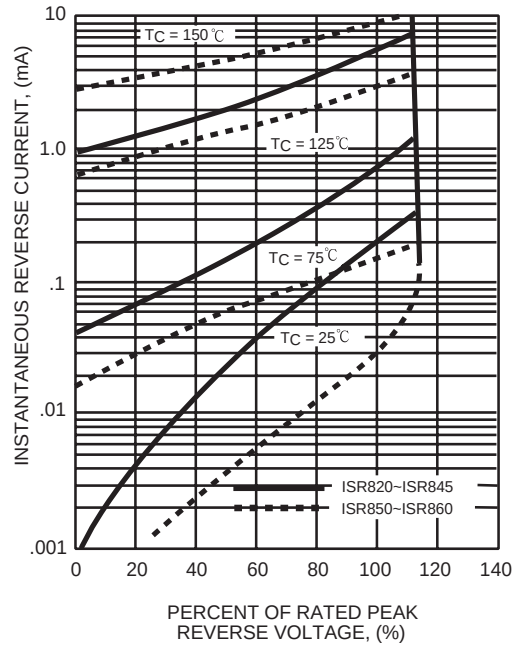


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

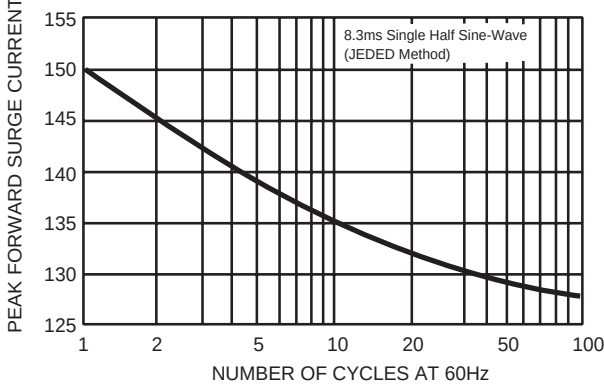


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

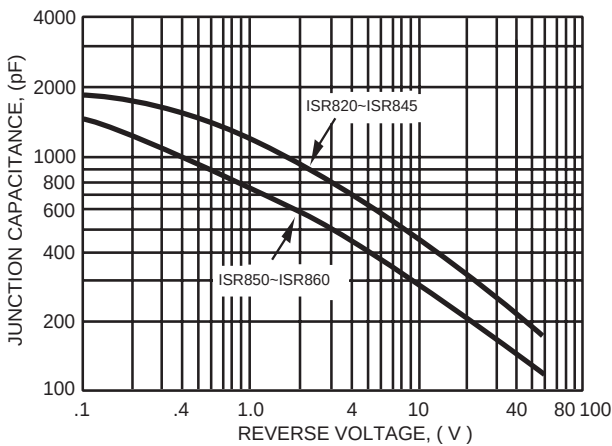
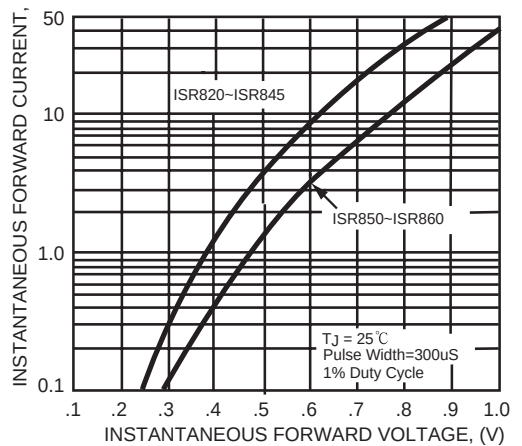


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



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