

**SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE 20 to 200 Volts CURRENT 16.0 Ampere**

**FEATURES**

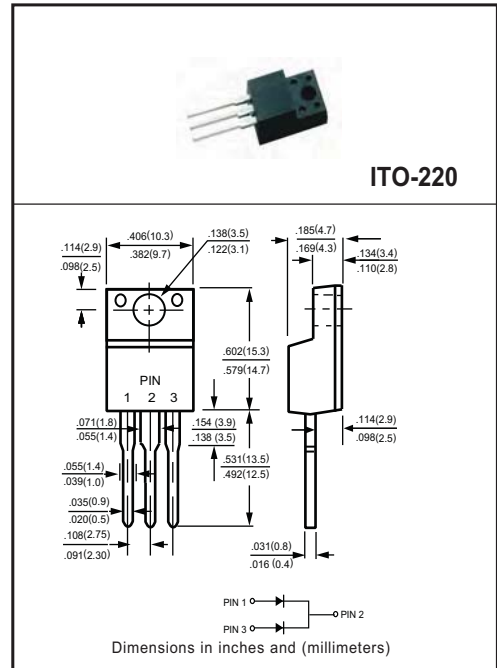
- \* Low switching noise
- \* Low forward voltage drop
- \* Low thermal resistance
- \* High current capability
- \* High switching capability
- \* High surge capability
- \* High reliability

**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 (@ TA=25 °C unless otherwise noted)**

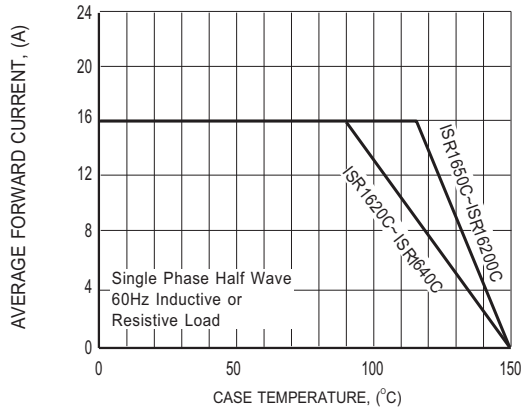
RATINGS	SYMBOL	ISR1620C	ISR1630C	ISR1635C	ISR1640C	ISR1645C	ISR1650C	ISR1660C	ISR1680C	ISR16100C	ISR16150C	ISR16200C	UNITS	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	35	40	45	50	60	80	100	150	200	Volts	
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	25	28	32	35	42	56	70	105	140	Volts	
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	35	40	45	50	60	80	100	150	200	Volts	
Maximum Average Forward Rectified Current at Derating Case Temperature	I <sub>O</sub>	16.0												Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150												Amps
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	2.0												°C/W
	R <sub>θJA</sub>	40												
Typical Junction Capacitance (Note 3)	C <sub>J</sub>	700						500						pF
Operating Temperature Range	T <sub>J</sub>	150												°C
Storage Temperature Range	T <sub>STG</sub>	-55 to + 150												°C

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

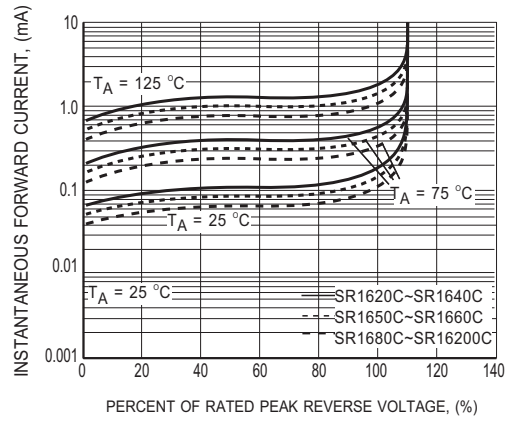
CHARACTERISTICS	SYMBOL	ISR1620C	ISR1630C	ISR1635C	ISR1640C	ISR1645C	ISR1650C	ISR1660C	ISR1680C	ISR16100C	ISR16150C	ISR16200C	UNITS	
Maximum Instantaneous Forward Voltage at 8.0A DC	V <sub>F</sub>	.65			.75			.85					Volts	
Maximum Average Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@T <sub>A</sub> = 25°C						0.2						mA
		@T <sub>A</sub> = 100°C						2						mA

- NOTES : 1. Thermal Resistance : Heat-sink mounted.  
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)".

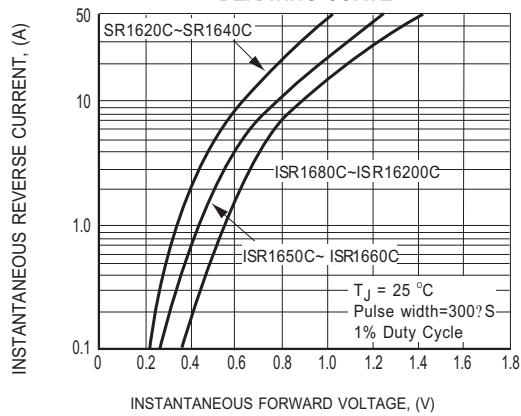
# RATING AND CHARACTERISTICS CURVES ( ISR1620C THRU ISR16200C )



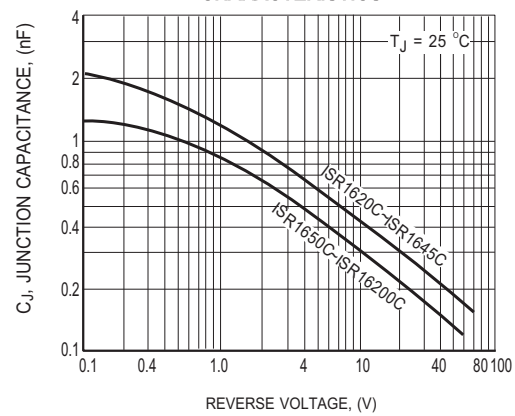
**FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE**



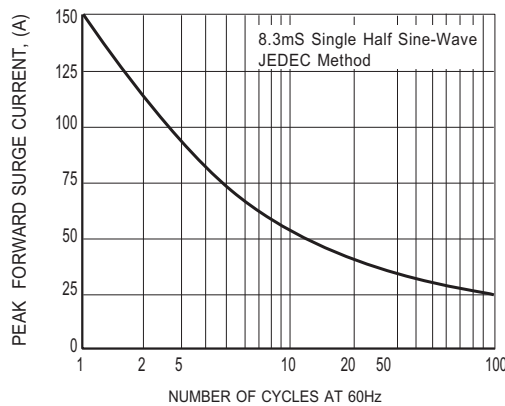
**FIG.2 TYPICAL REVERSE CHARACTERISTICS**



**FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

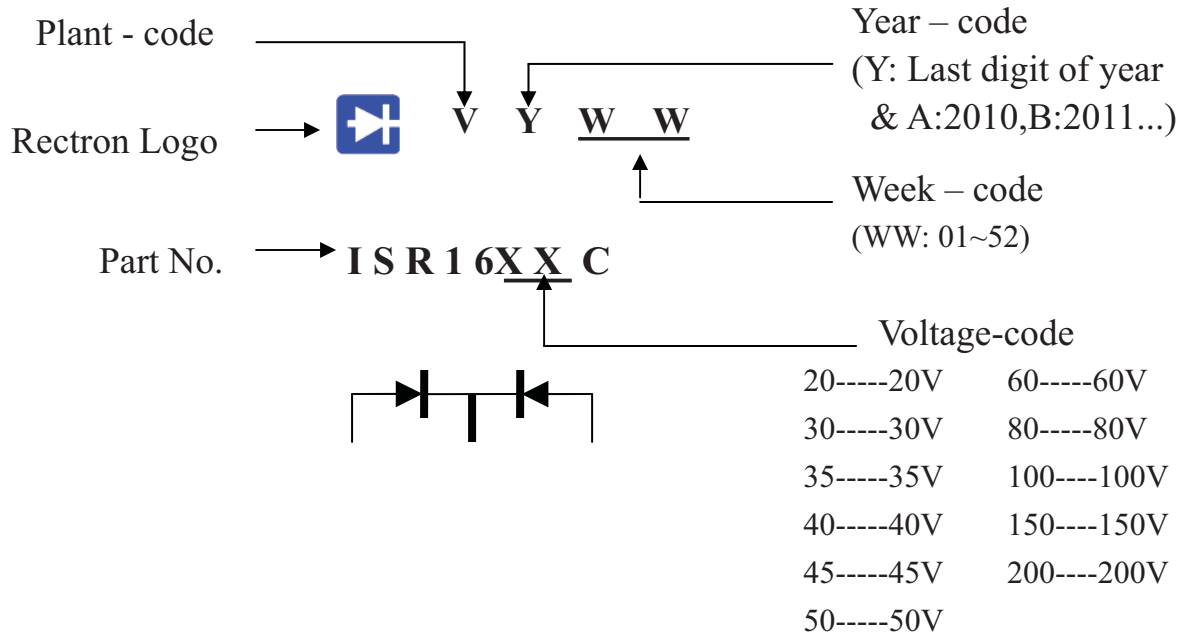


**FIG.4 TYPICAL JUNCTION CAPACITANCE**



**FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**

# Marking Description



# PACKAGING OF DIODE AND BRIDGE RECTIFIERS

## TUBE PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	WEIGHT(Kg)
(I)TO-220/TO-220(A)	-C	2,000	550*140*92	572*308*120	4,000	11.80

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