

**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**

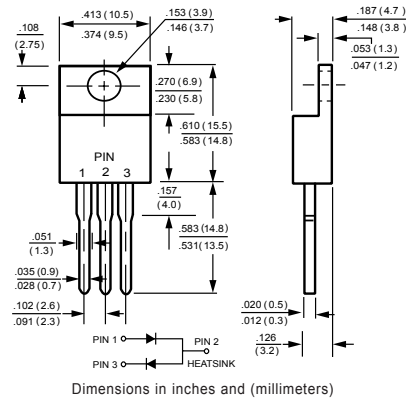
- \* Case: To-220 molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 2.24 grams

**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%.



**TO-220**



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

RATINGS	SYMBOL	SR1620C	SR1630C	SR1635C	SR1640C	SR1645C	SR1650C	SR1660C	SR1680C	SR16100C	SR16150C	SR16200C	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	SR1620C	SR1630C	SR1635C	SR1640C	SR1645C	SR1650C	SR1660C	SR1680C	SR16100C	SR16150C	SR16200C	UNITS
Maximum Instantaneous Forward Voltage at 8.0A DC		V <sub>F</sub>	.65						.75	.85				Volts
Maximum Average Reverse Current	@T <sub>A</sub> = 25°C	I <sub>R</sub>	0.2								mA			
at Rated DC Blocking Voltage	@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)".

2006-11

## RATING AND CHARACTERISTICS CURVES ( SR1620C THRU SR16200C )

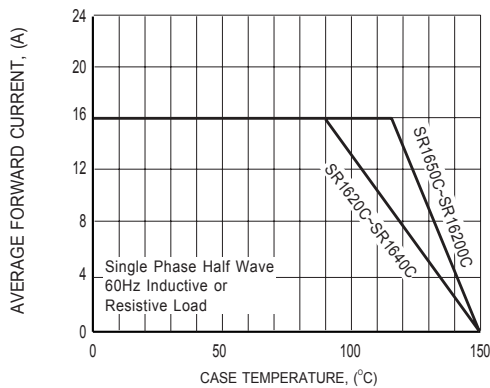


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

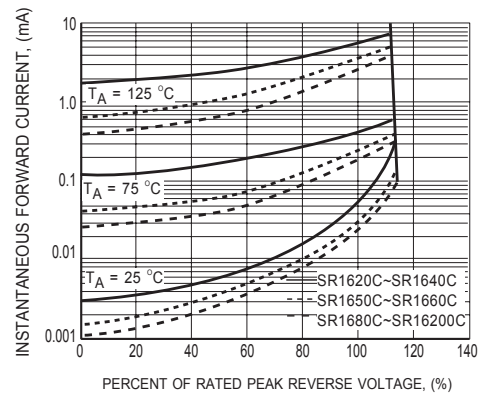


FIG.2 TYPICAL REVERSE CHARACTERISTICS

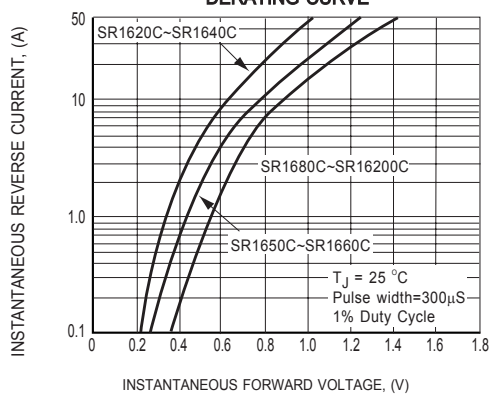


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

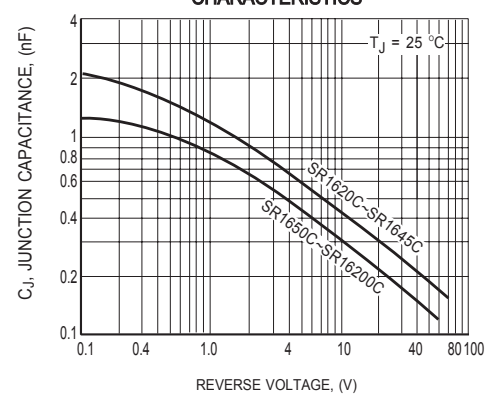


FIG.4 TYPICAL JUNCTION CAPACITANCE

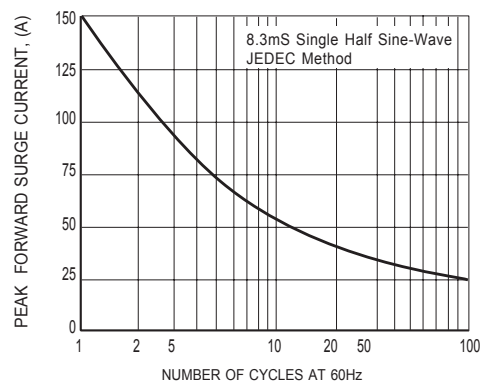


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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