

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

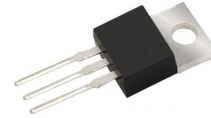
- * Case: To-220 molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

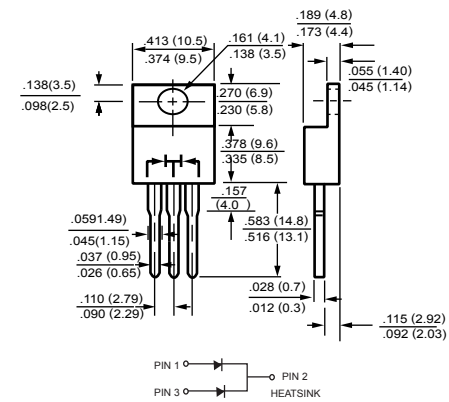
Ratings at 25 °C ambient temperature unless otherwise specified.

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 _{RRM}	20	30	35	40	45	50	60	80	100	150	200	Volts
Maximum RMS Voltage	V _{RMS}	14	21	25	28	32	35	42	56	70	105	140	Volts
Maximum DC Blocking Voltage	V _{DC}	20	30	35	40	45	50	60	80	100	150	200	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	I _O	16.0											Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	150											Amps
Typical Current Squared Time	I ² t	93.37											A ² /Sec
Typical Thermal Resistance (Note 1)	R _{θJC}	2.0											°C/W
	R _{θJA}	40											
Typical Junction Capacitance (Note 3)	C _J	700					500					pF	
Operating Temperature Range	T _J	150											°C
Storage Temperature Range	T _{STG}	-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 _F	.65						.75	.85				Volts
Maximum Average Reverse Current	@T _A = 25°C	I _R	0.2											mA
at Rated DC Blocking Voltage	@T _A = 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. "RoHS compliant".

2022-04
REV:C

RATING AND CHARACTERISTICS CURVES (SR1620C THRU SR16200C)

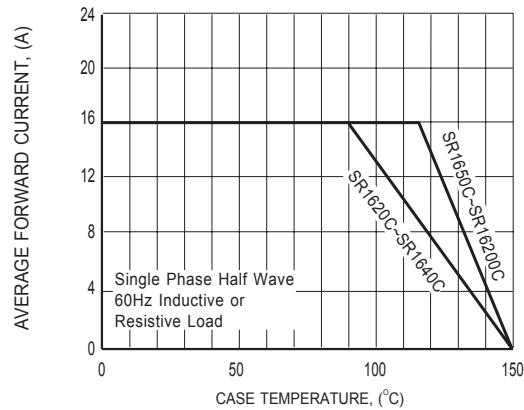


FIG.1 TYPICAL FORWARD CURRENT DERATING CURVE

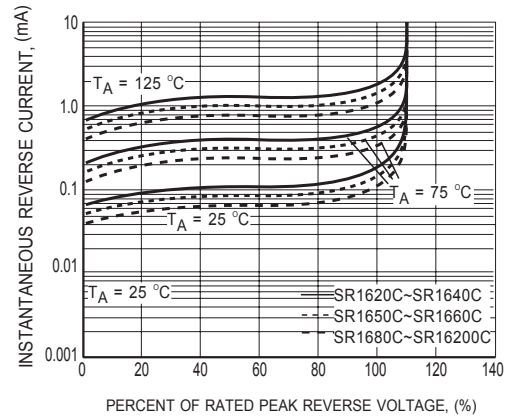


FIG.2 TYPICAL REVERSE CHARACTERISTICS

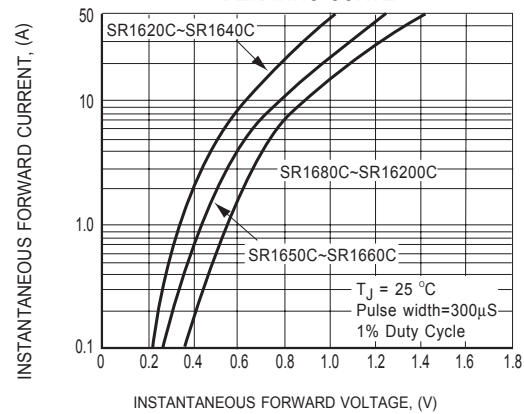


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

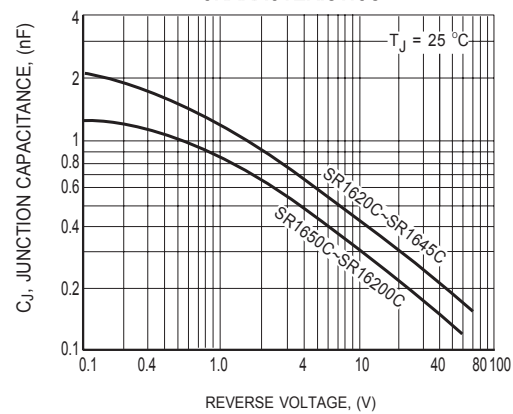


FIG.4 TYPICAL JUNCTION CAPACITANCE

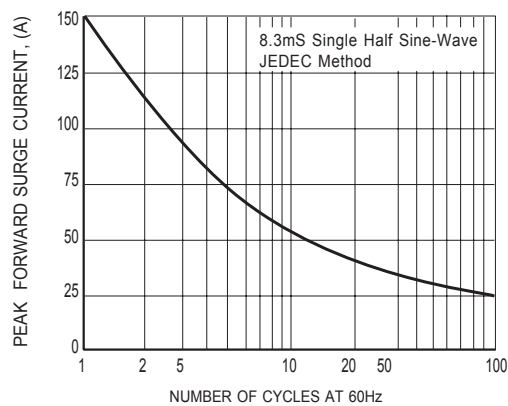


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

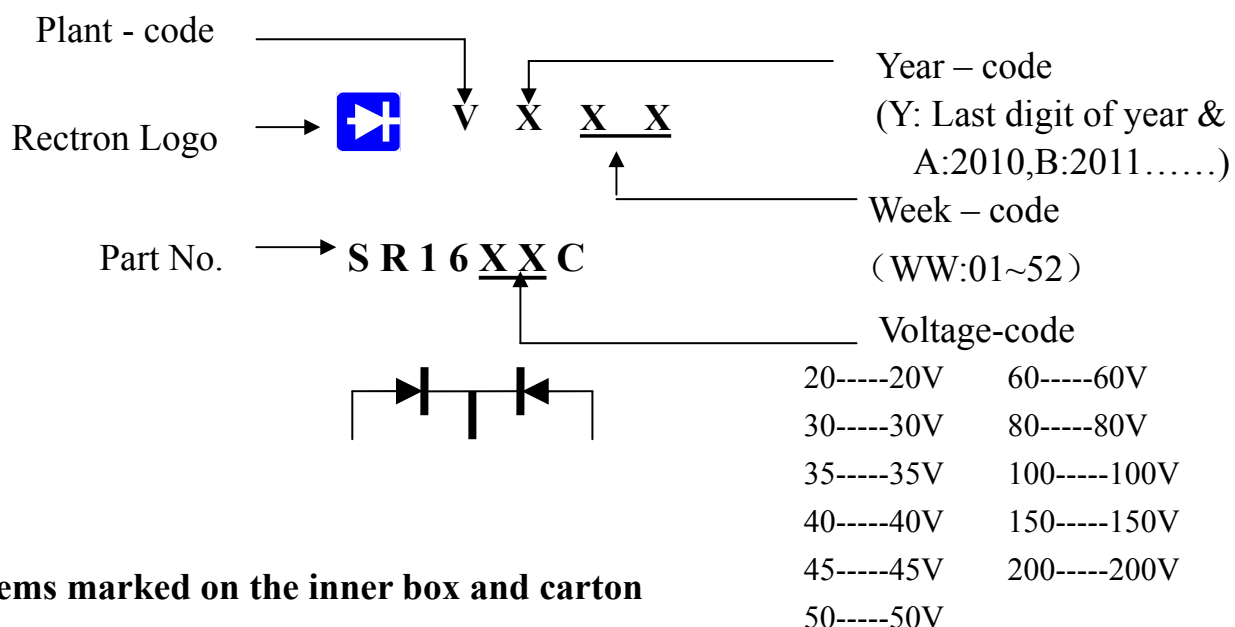


Attachment information about SR16XXC

1. Internal Circuit



2. Marking on the body



3. Items marked on the inner box and carton

3.1 On the box (for -C)

CUSTOMER
TYPE
LOT NO.
QUANTITY
Q.A.
DATE

3.2 On the carton

CUSTOMER
TYPE
QUANTITY
LOT NO.
REMARK

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

DISCLAIMER NOTICE

Rectron Inc reserves the right to make changes without notice to any product specification herein, to make corrections, modifications, enhancements or other changes. Rectron Inc or anyone on its behalf assumes no responsibility or liability for any errors or inaccuracies. Data sheet specifications and its information contained are intended to provide a product description only. "Typical" parameters which may be included on RECTRON data sheets and/ or specifications can and do vary in different applications and actual performance may vary over time. Rectron Inc does not assume any liability arising out of the application or use of any product or circuit.

Rectron products are not designed, intended or authorized for use in medical, life-saving implant or other applications intended for life-sustaining or other related applications where a failure or malfunction of component or circuitry may directly or indirectly cause injury or threaten a life without expressed written approval of Rectron Inc. Customers using or selling Rectron components for use in such applications do so at their own risk and shall agree to fully indemnify Rectron Inc and its subsidiaries harmless against all claims, damages and expenditures.