



SEMICONDUCTOR

# SR1620 THRU SR16200(SINGLE CHIP)

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts

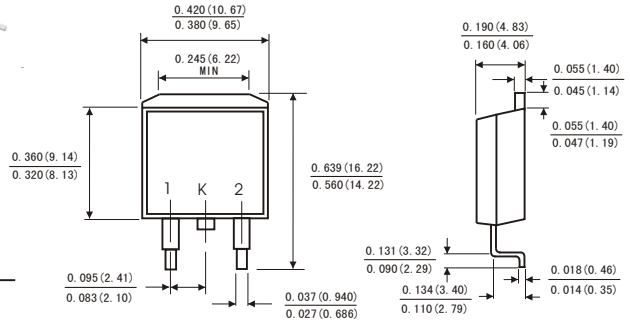
Forward Current - 16.0Amperes

## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Single rectifier construction
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



TO-263  
D2PAK



Dimensions in inches and (millimeters)

## MECHANICAL DATA

- Case: JEDEC TO-263 molded plastic body
- Terminals: Solderable per MIL-STD-202,method 308
- Polarity: As marked
- Mounting Position: Any
- Weight: 0.08ounce, 2.24 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

	Symbols	SR 1620	SR 1630	SR 1640	SR 1650	SR 1660	SR 1680	SR 16A0	SR 16150	SR 16200	Units	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	Volts	
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	140	Volts	
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	200	Volts	
Maximum average forward rectified current See Fig. 1	I(AV)	16.0									Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	200.0									Amps	
Maximum instantaneous forward voltage at 16.0 A	V <sub>F</sub>	0.60			0.75		0.85		0.90		0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I <sub>R</sub>	0.5									mA	
		30			50							
Typical thermal resistance (Note 2)	R <sub>θJC</sub>	3.0									°C/W	
Operating junction temperature range	T <sub>J</sub>	-65 to +125				-65 to +150						°C
Storage temperature range	T <sub>STG</sub>	-65 to +150									°C	

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Thermal resistance from junction to case

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# RATINGS AND CHARACTERISTIC CURVES SR1620-SR16200(SINGLE CHIP)

FIG.1-FORWARD CURRENT DERATING CURVE

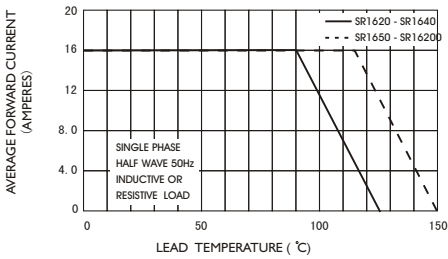


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

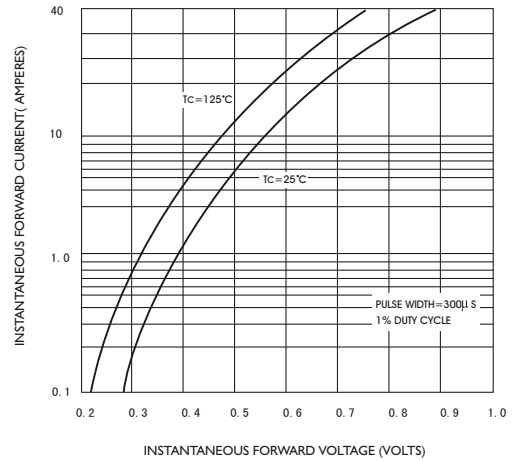


FIG.4-TYPICAL JUNCTION CAPACITANCE

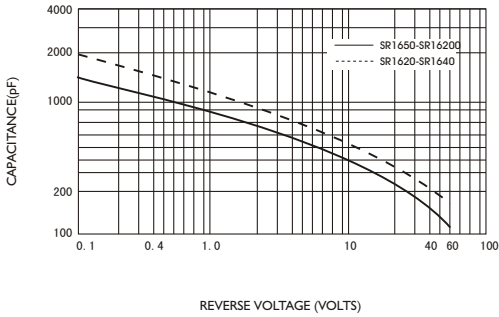


FIG.3-TYPICAL REVERSE CHARACTERISTICS

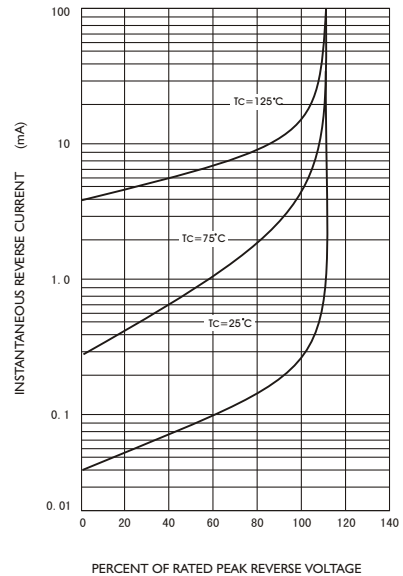


FIG.5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

