

# SR5150-SR5200

5.0 AMP SCHOTTKY BARRIER RECTIFIERS



## FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability
- \* Epitaxial construction

## MECHANICAL DATA

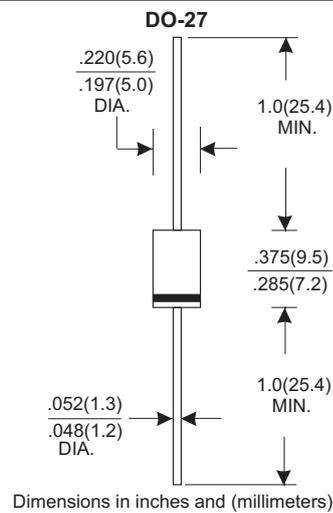
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 1.10 grams
- \* Both normal and Pb free product are available:
- \* Normal: 80~95%Sn, 5~20%Pb
- \* Pb free: 99 Sn above can meet Rohs environment substance directive request

## VOLTAGE RANGE

150 to 200 Volts

## CURRENT

5.0 Amperes



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.  
Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)				
PARAMETER	SYMBOL	SR 5150	SR 5200	UNIT
Maximum repetitive peak reverse voltage		150	200	V
Maximum RMS voltage		105	140	V
Maximum DC blocking voltage		150	200	V
Maximum average forward rectified current	I <sub>F(AV)</sub>	5		A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	120		A
Maximum instantaneous forward voltage (Note 1) @ 5 A	V	1.05		V
Maximum reverse current @ rated VR T <sub>A</sub> =25 °C T <sub>A</sub> =125 °C	I <sub>R</sub>	0.1		mA
		1		
Voltage rate of change (Rated V <sub>R</sub> )	dV/dt	10000		V/μs
Typical thermal resistance	R <sub>θJC</sub>	6		°C/W
	R <sub>θJA</sub>	35		
Operating junction temperature range	T <sub>J</sub>	- 55 to +150		°C
Storage temperature range	T <sub>STG</sub>	- 55 to +150		°C

Note 1: Pulse test with PW=300 μ

## RATING AND CHARACTERISTIC CURVES SR5150--SR5200

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

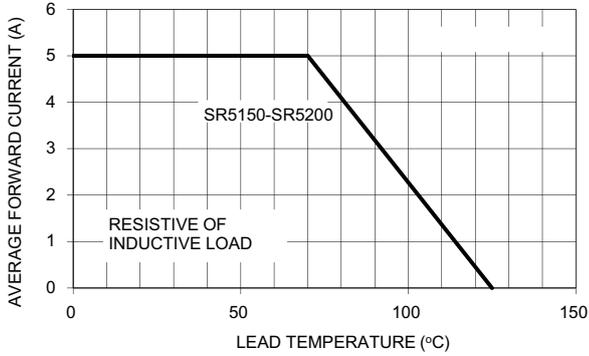


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

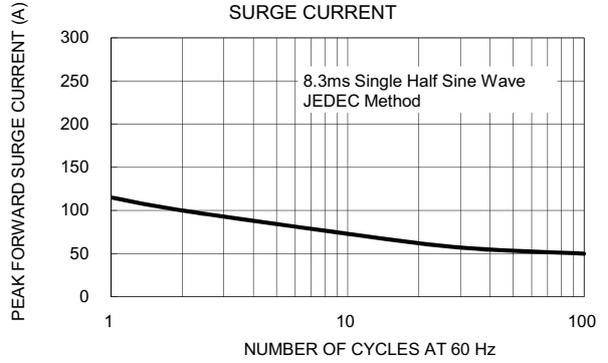


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

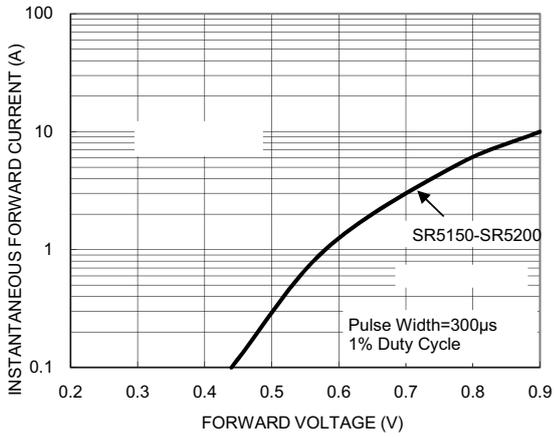


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

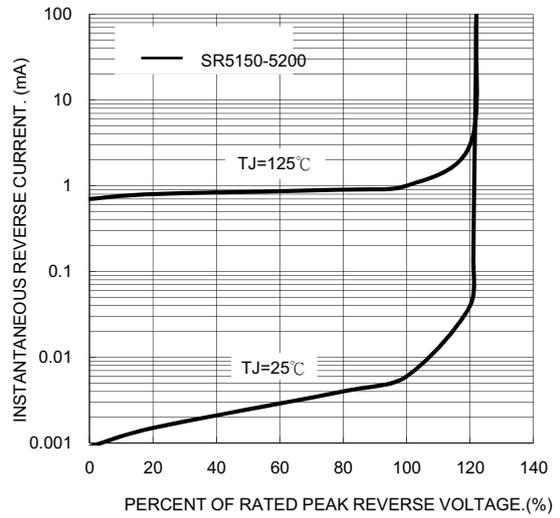


FIG. 5- TYPICAL JUNCTION CAPACITANCE

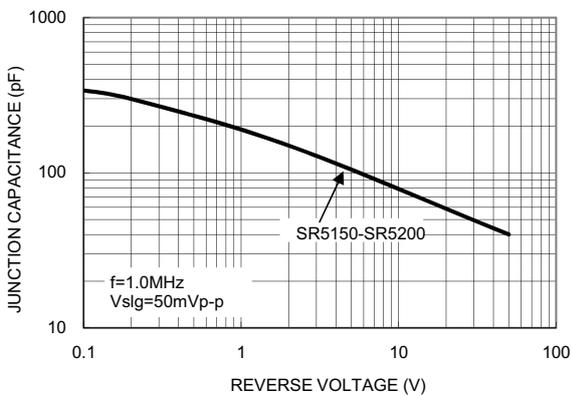


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

