



S E M I C O N D U C T O R

# SR1535 THRU SR1560

SCHOTTKY BARRIER RECTIFIER  
Reverse Voltage - 35 to 60 Volts  
Forward Current - 15Amperes

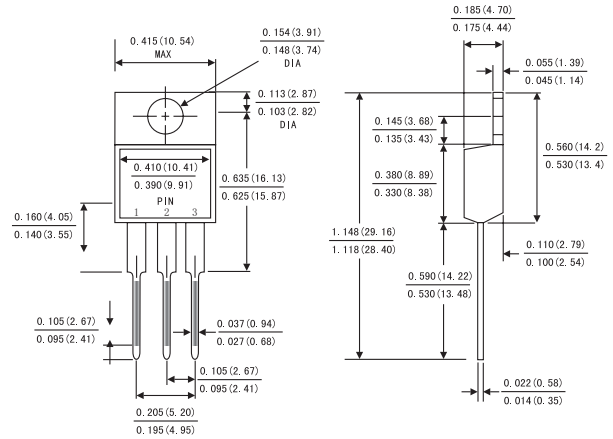
SCHOTTKY RECTIFIER

## 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
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- Dual rectifier construction
- High temperature soldering guaranteed:250°C/10 seconds, 0.25"(6.35mm)from case



## TO-220AB



## MECHANICAL DATA

- Case: JEDEC TO-220AB molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked, No suffix indicates Common Cathode, suffix"A" indicates Common Anode
- Mounting Position: Any
- Weight: 0.08ounce, 2.24 grams

## 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 1535	SR 1545	SR 1550	SR 1560	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	35	45	50	60	Volts
Maximum RMS voltage	V <sub>RMS</sub>	25	32	35	42	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	35	45	50	60	Volts
Maximum average forward rectified current at T <sub>c</sub> =105°C per diode/per device	I <sub>(AV)</sub>	7.5 15.0				Amps Amps
Repetitive peak forward current(square wave, 20KHZ) at T <sub>c</sub> =105°C per diode	I <sub>FRM</sub>	15.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150.0				Amps
Maximum instantaneous forward voltage at 7.5 A(Note 1)	V <sub>F</sub>	0.65	0.75			Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I <sub>R</sub>	T <sub>a</sub> = 25°C	1.0			mA
		T <sub>a</sub> = 125°C	15	50		
Typical thermal resistance (Note 2)	R <sub>θJC</sub>	2.5				°C/W
Operating junction temperature range	T <sub>J</sub>	-65 to +150				°C
Storage temperature range	T <sub>STG</sub>	-65 to +175				°C

- Notes: 1. Pulse test: 300 μs pulse width, 1% duty cycle  
2. Thermal resistance from junction to case

# RATINGS AND CHARACTERISTIC CURVES SR1535 THRU SR1560

FIG.1-FORWARD CURRENT DERATING CURVE

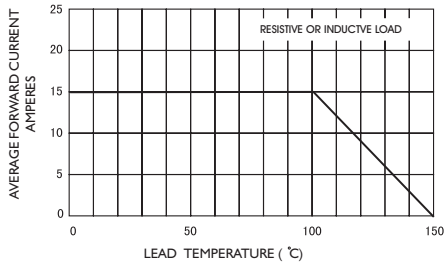


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

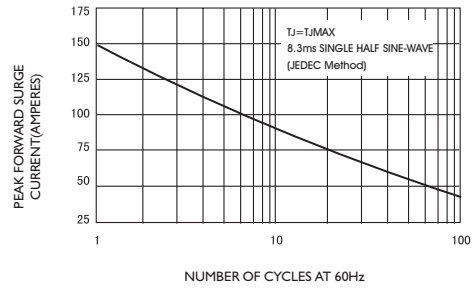


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

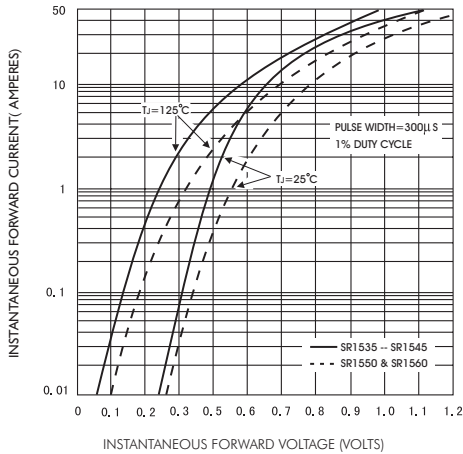


FIG.4-TYPICAL REVERSE CHARACTERISTICS

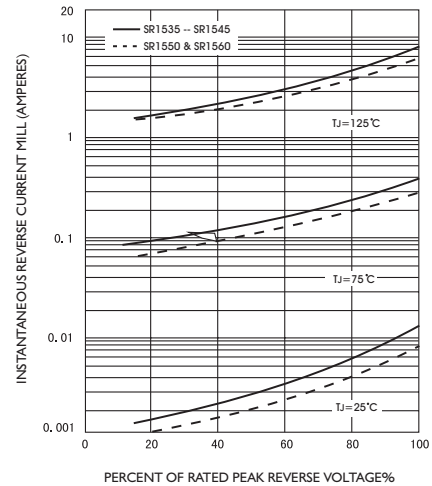


FIG.5-TYPICAL JUNCTION CAPACITANCE

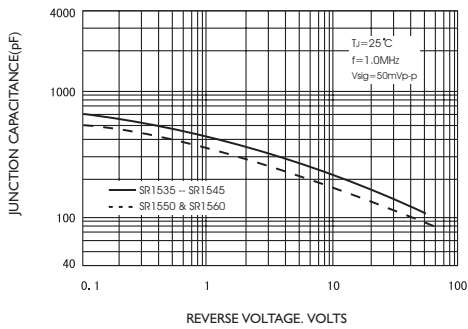


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

