SEMICONDUCTOR

SR1535 THRU SR1560

SCHOTTKY BARRIER RECTIFIER

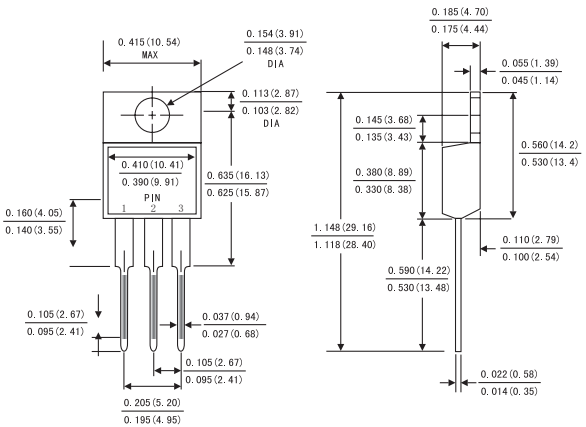
Reverse Voltage - 35 to 60 Volts
Forward Current - 15Amperes

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℃/10 seconds, 0.25"(6.35mm)from case

TO-220AB



Dimensions in inches and (millimeters)

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℃ 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_{RRM}	35	45	50	60	Volts
Maximum RMS voltage	V_{RMS}	25	32	35	42	Volts
Maximum DC blocking voltage	V_{DC}	35	45	50	60	Volts
Maximum average forward rectified current at T_C=105℃ per diode/per device	$I_{(AV)}$	7.5 15.0				Amps Amps
Repetitive peak forward current(square wave, 20KHZ) at T_C=105℃ per diode	I_{FRM}	15.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150.0				Amps
Maximum instantaneous forward voltage at 7.5 A(Note 1)	V_F	0.65		0.75		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_A=25℃	I_R	1.0				mA
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_A=125℃	I_R	15		50		mA
Typical thermal resistance (Note 2)	$R_{\theta JC}$	2.5				℃/W
Operating junction temperature range	T_J	-65 to+150				℃
Storage temperature range	T_{STG}	-65 to+175				℃

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 SR1535 THRU SR1560

FIG.1-FORWARD CURRENT DERATING CURVE

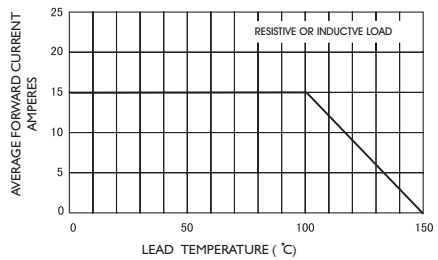


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

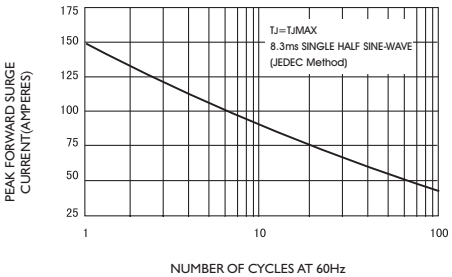


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

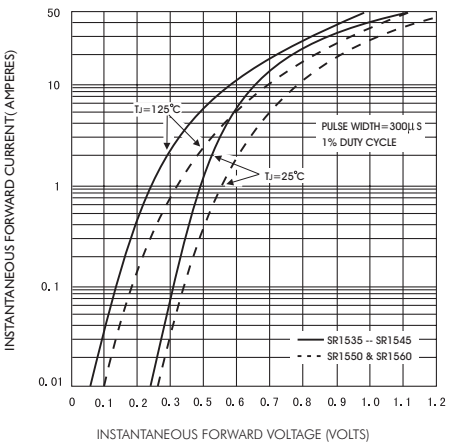


FIG.4-TYPICAL REVERSE CHARACTERISTICS

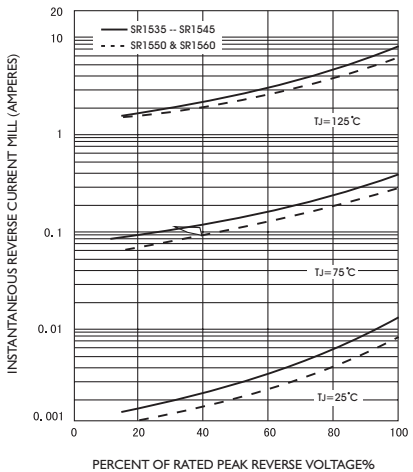


FIG.5-TYPICAL JUNCTION CAPACITANCE

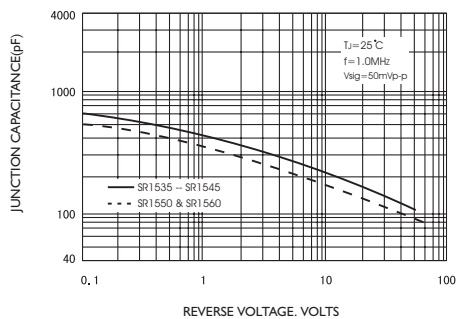
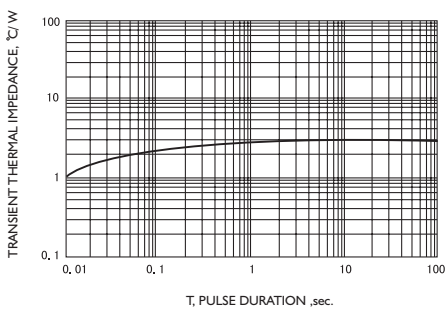


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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