



SCHOTTKY BARRIER RECTIFIER

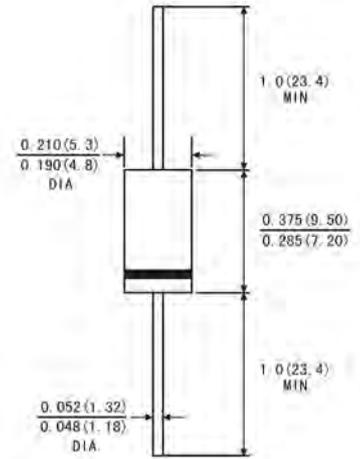
SR520 - SR5200

Voltage Range 20 to 200 Volts
Forward Current 5.0 Amperes

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

DO-201AD



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC TO-220AC molded plastic body
- Terminals: Solderable per MIL-STD-202, method 2026
- 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 520	SR 530	SR 540	SR 550	SR 560	SR 580	SR 5A0	SR 5150	SR 5200	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	57	71	105	140	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	Volts
Maximum average forward rectified current 0.375”(9.5mm) lead length (see fig.1)	$I_{(AV)}$	5.0									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 30.0 A	V_F	0.55		0.70		0.85		0.90	0.95		Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I_R	0.20									mA
		50			25						
Typical junction capacitance(Note 3)	C_J	500			400						pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	25.0									°C/W
	$R_{\theta JL}$	8.0									
Operating junction and storage temperature range	T_J / T_{STG}	-65 to +150									°C

Notes:

1. Pulse test: 300 μs pulse width 1% duty cycle
2. Thermal resistance from junction to lead vertical P.C.B. mounted , 0.375”(9.5mm) lead length
3. Measured at 1MHz and reverse voltage of 4.0 volts



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RATINGS AND CHARACTERISTIC CURVES SR520 - SR5200

FIG.1-FORWARD CURRENT DERATING CURVE

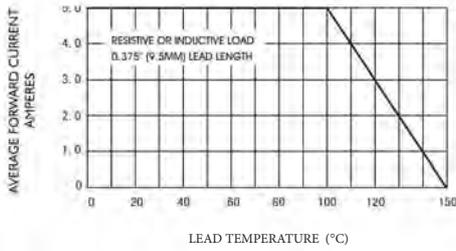


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

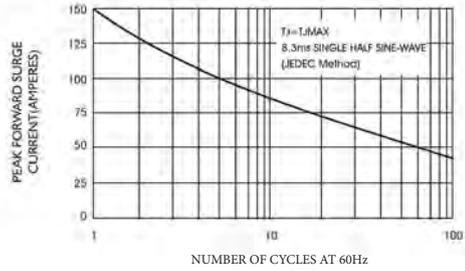


FIG.3-TYPICAL INSTANTANEOUS

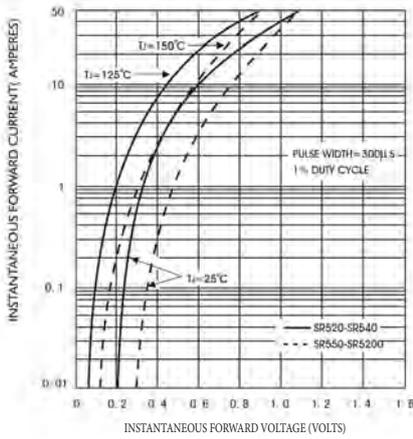


FIG.4-TYPICAL REVERSE CHARACTERISTICS

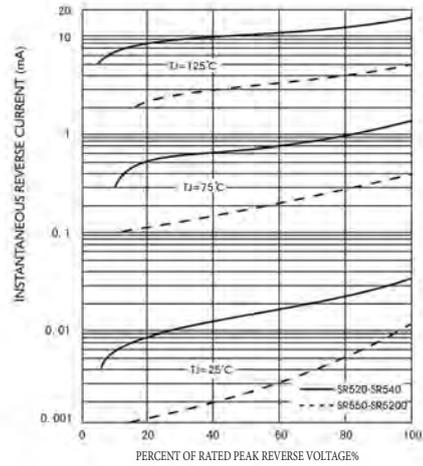


FIG.5-TYPICAL JUNCTION CAPACITANCE

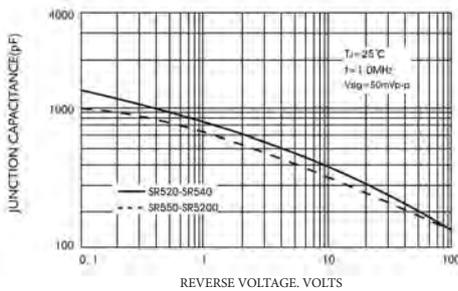


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

