

SCHOTTKY BARRIER RECTIFIER

SR520 THRU SR5200 20 to 200 V 5.0 A

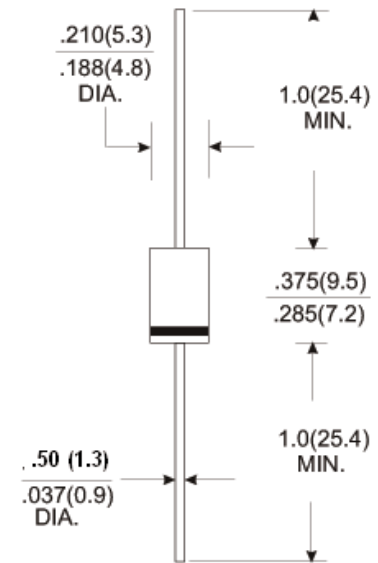
Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for over voltage 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
- High temperature soldering guaranteed:
260°C/10 seconds at terminals,
- 0.375"(9.5mm)lead length,5lbs.(2.3kg)tension

Mechanical Data

- Case: JEDEC DO-201AD And DO-27 molded plastic body
- Terminals: solder plated ,solder able per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 0.041ounce,1.15 gram

DO-201AD/DO-27



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

	Symbols	SR 520	SR 530	SR 540	SR 550	SR 560	SR 580	SR 5100	SR 5150	SR 5200	Units	
Maximum Recurrent 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									Amp	
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150.0									Amp	
Maximum instantaneous forward voltage at 5.0 A (Note 1)	V_F	0.55		0.70		0.80		0.85		0.95	Volts	
Maximum Reverse Current $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	I_R	0.5									mAmp	
		20										
Maximum Reverse Recovery Time (Note 4)	T_{RR}	15									nS	
Typical junction capacitance(Note 3)	C_J	340						320			pF	
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	25.0					8.0					°C/W
Operating Temperature Range	T_J	-65 to +150									°C	
Storage Temperature Range	T_{STG}	-65 to +150									°C	

NOTES:

1. Pulse test: 300 μ s 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 1.0MHz and reverse voltage of 4.0 volts
4. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

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RATINGS AND CHARACTERISTIC CURVES (SR520 THRU SR5200)

FIG.1-FORWARD CURRENT DERATING CURVE

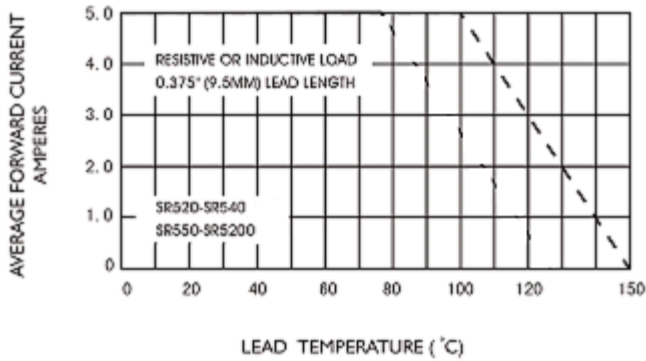


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

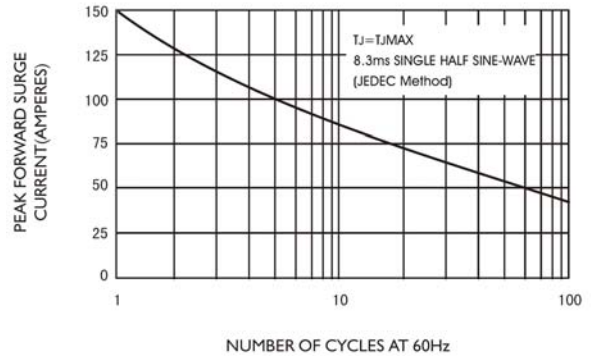


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

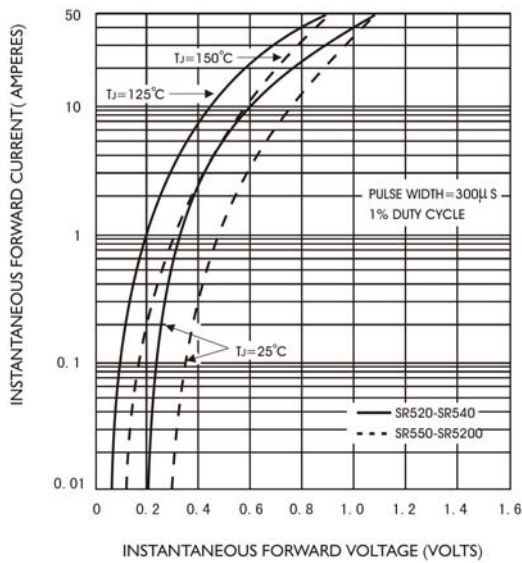


FIG.4-TYPICAL REVERSE CHARACTERISTICS

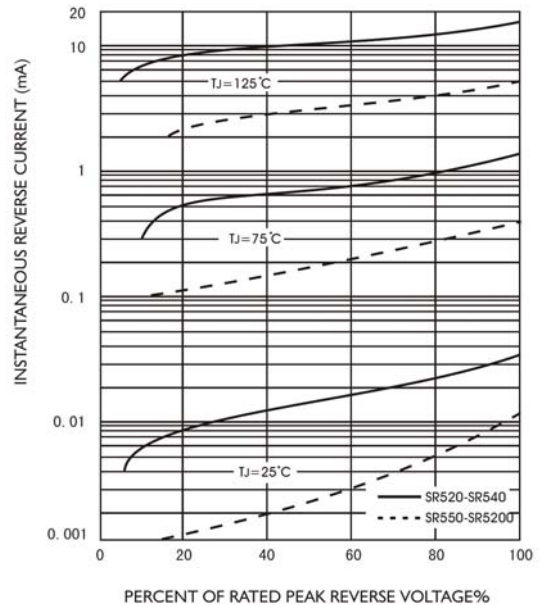


FIG.5-TYPICAL JUNCTION CAPACITANCE

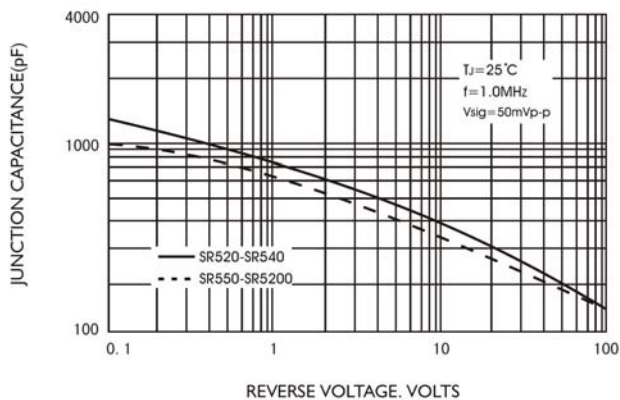


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

