

# SCHOTTKY BARRIER RECTIFIER

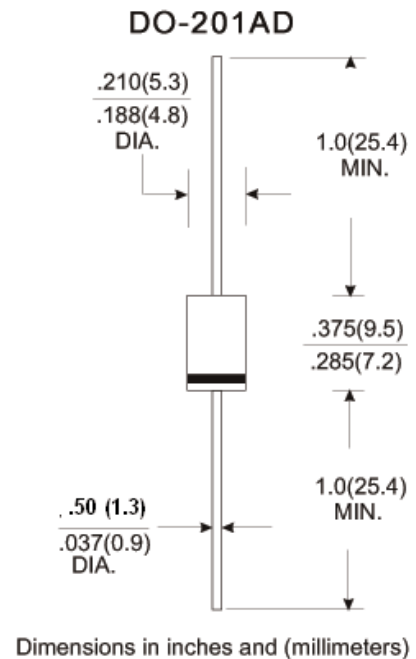
## SR320THRU SR3200 20 to 200 V 3.0 A

### 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:  
250°C/10 seconds at terminals,
- 0.375"(9.5mm)lead length,5lbs.(2.3kg)tension

### Mechanical Data

- Case: JEDEC DO-201AD molded plastic body
- Terminals: solder plated ,solder able per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 0.041 ounce,1.20 gram



### 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 320	SR 330	SR 340	SR 350	SR 360	SR 380	SR 3100	SR 3150	SR 3200	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)	$I_{(AV)}$	3.0									Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	80.0									Amp
Maximum instantaneous forward voltage at 3.0 A(Note 1)	$V_F$	0.55		0.70		0.85		0.90		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			10						
Typical junction capacitance(Note 3)	$C_J$	250			160						pF
Maximum Reverse Recovery Time (Note 4)	$T_{RR}$	15									nS
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40.0									°C/W
	$R_{\theta JC}$	10.0									
Operating Temperature Range	$T_J$	-65 to +150									°C
Storage Temperature Range	$T_{STG}$	-65 to +150									°C

### NOTES:

1. Pulse test: 300  $\mu$ s pulse width, 1% duty cycle
2. Thermal resistance from junction to lead vertical P.C.B. mounted, 0.5"(12.7mm) lead length With 2.5X2.5"(63.5X63.5mm) copper pads
3. Measured at 1.0MHz and reverse voltage of 4.0 volts
4. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$

### RATINGS AND CHARACTERISTIC CURVES (SR320 THRU SR3200)

FIG.1-FORWARD CURRENT DERATING CURVE

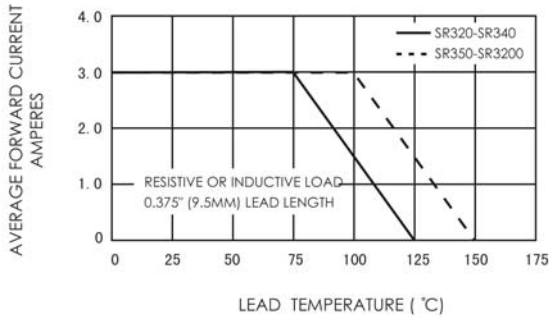


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

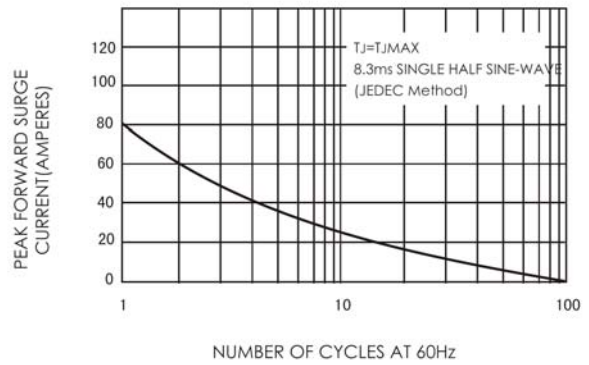


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

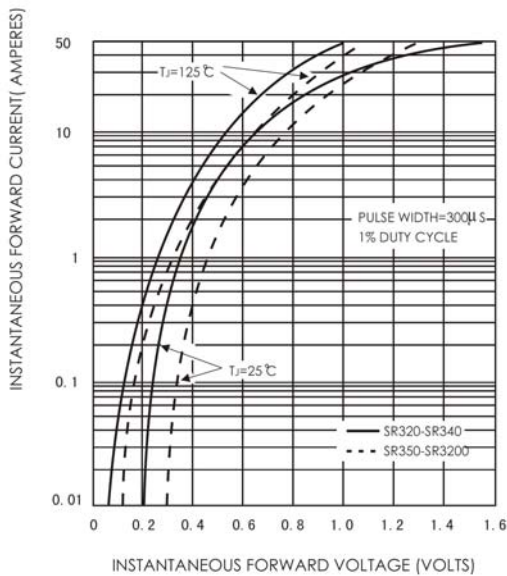


FIG.4-TYPICAL REVERSE CHARACTERISTICS

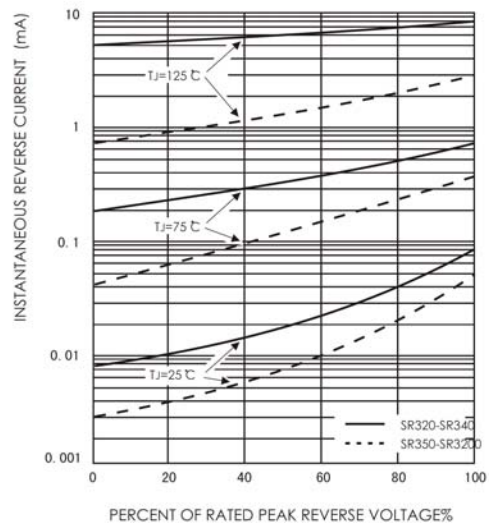


FIG.5-TYPICAL JUNCTION CAPACITANCE

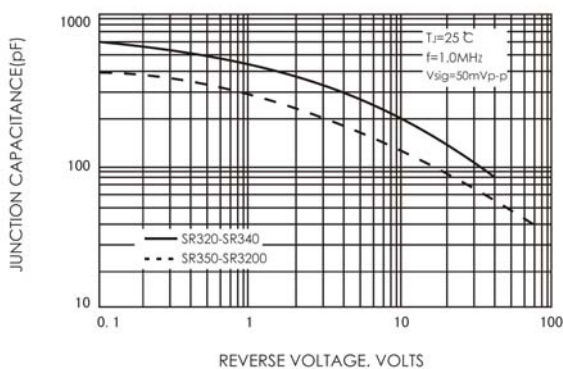


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

