

# SR520 THRU SR5200

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts Forward Current - 5.0 Amperes

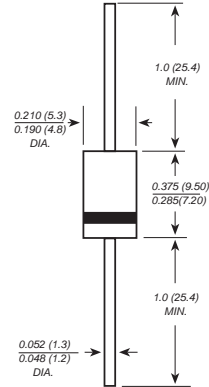
### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### MECHANICAL DATA

**Case:** JEDEC DO-201AD molded plastic body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.04 ounce, 1.10 grams

### DO-201AD



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 current derate by 20%.

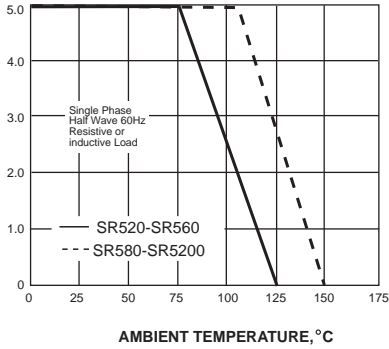
	SYMBOLS	SR 520	SR 540	SR 560	SR 580	SR 5100	SR 5150	SR 5200	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	40	60	80	100	150	200	VOLTS
Maximum RMS voltage	$V_{RMS}$	14	28	42	56	70	105	140	VOLTS
Maximum DC blocking voltage	$V_{DC}$	20	40	60	80	100	150	200	VOLTS
Maximum average forward rectified 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 5.0A	$V_F$	0.55	0.70	0.85	0.95				Volts
Maximum DC reverse current at rated DC blocking voltage	$I_R$	0.5							mA
$T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$		20.0			10.0				
Typical junction capacitance (NOTE 1)	$C_J$	500			400				pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	25.0							°C/W
Operating junction temperature range	$T_J$	-65 to +125			-65 to +150				°C
Storage temperature range	$T_{STG}$	-65 to +150							°C

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.  
 2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

# RATINGS AND CHARACTERISTIC CURVES SR520 THRU SR5200

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT, AMPERES

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

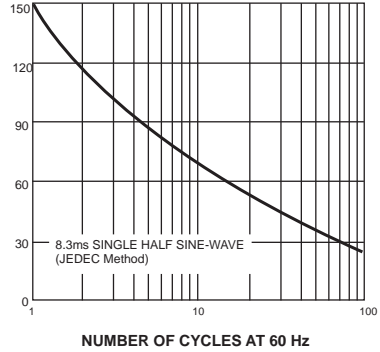


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

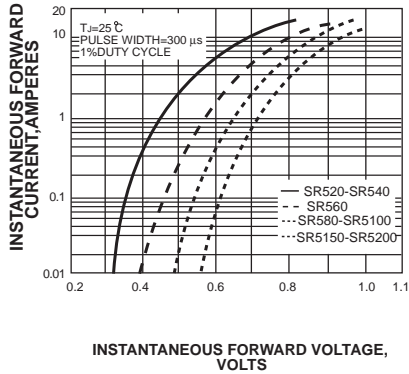


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

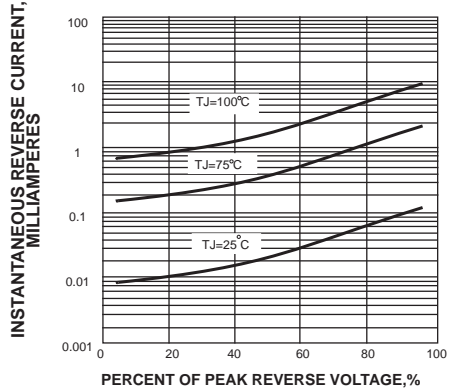
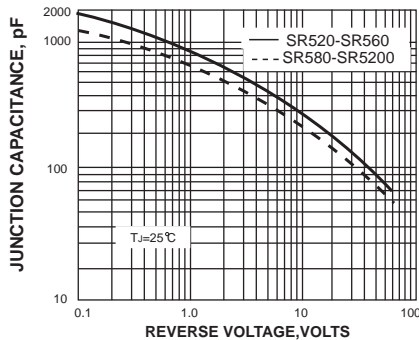
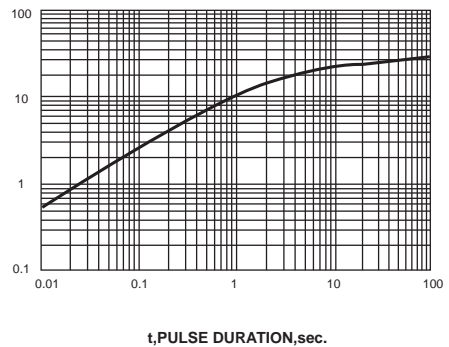


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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