



# SR320 THRU SR3200

Reverse Voltage - 20 to 200 Volts Forward Current - 3.0 Ampere

## SCHOTTKY BARRIER RECTIFIER

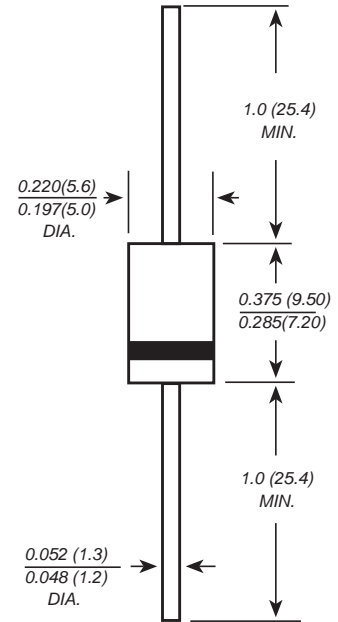
### Features

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

### Mechanical Data

**Case** : JEDEC DO-201AD Molded plastic body  
**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026  
**Polarity** : Polarity symbol marking on body  
**Mounting Position** : Any  
**Weight** : 0.04 ounce, 1.10 grams

DO-201AD **ROHS COMPLIANT**



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%.

Parameter	SYMBOLS	SR 320	SR 330	SR 340	SR 350	SR 360	SR 370	SR 380	SR 390	SR 3100	SR 3150	SR 3200	UNITS	
		MDD SR 320	MDD SR 330	MDD SR 340	MDD SR 350	MDD SR 360	MDD SR 370	MDD SR 380	MDD SR 390	MDD SR 3100	MDD SR 3150	MDD SR 3200		
Maximum repetitive peak reverse voltage	V <sub>RMM</sub>	20	30	40	50	60	70	80	90	100	150	200	V	
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	49	56	63	70	105	140	V	
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	70	80	90	100	150	200	V	
Maximum average forward rectified current 0.375" (9.5mm) lead length (see fig. 1)	I <sub(av)< sub=""></sub(av)<>	3.0											A	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	80											A	
Maximum instantaneous forward voltage at 3.0A	V <sub>F</sub>	0.55		0.70			0.85			0.95			V	
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	0.5								0.2			mA	
		20.0				10.0				2.0				
Typical junction capacitance (NOTE 1)	C <sub>J</sub>	250				160							pF	
Typical thermal resistance (NOTE 2)	R <sub>θJA</sub>	40.0											°C/W	
Operating junction and storage	T <sub>J</sub>	-65 to +125					-65 to +150							°C
Storage temperature range	T <sub>STG</sub>	-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



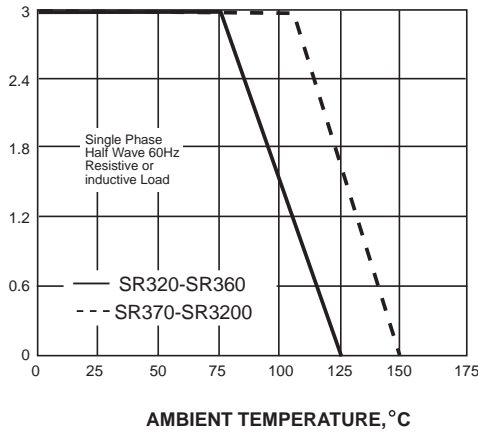
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## Ratings And Characteristic Curves

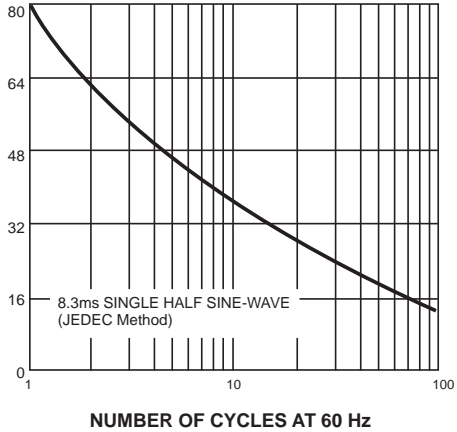
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



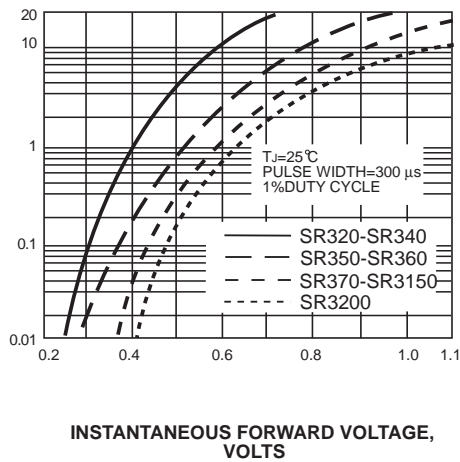
PEAK FORWARD SURGE CURRENT, AMPERES

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



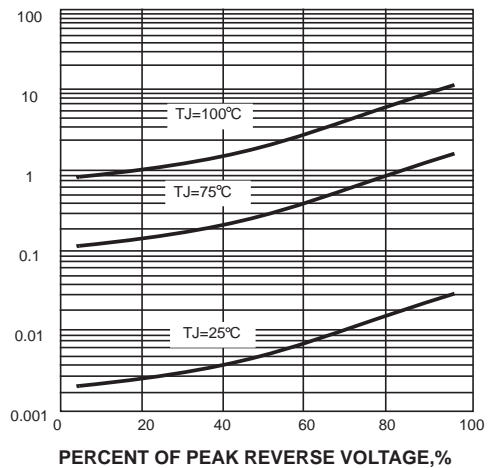
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



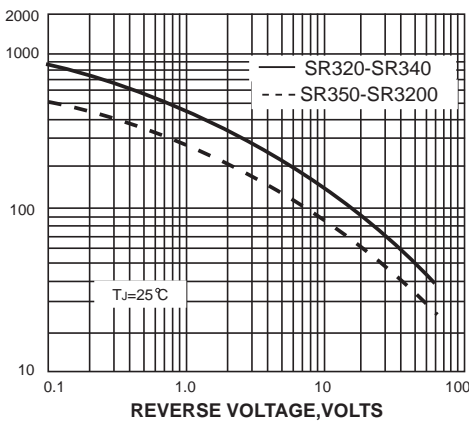
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



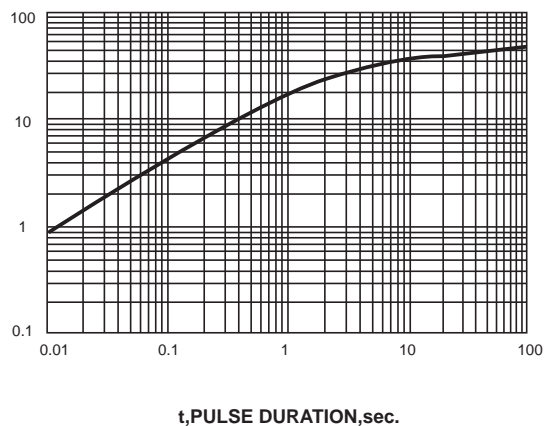
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.