

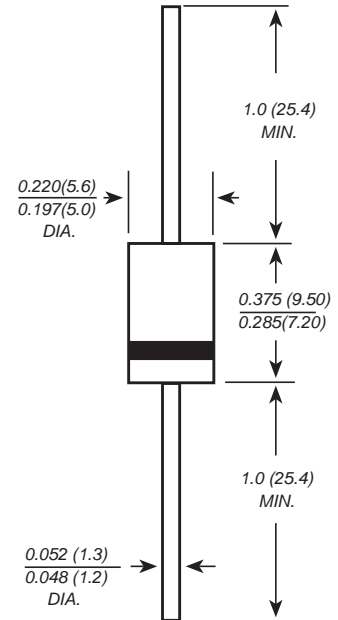
SCHOTTKY BARRIER DIODE

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

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

DO-201AD



Dimensions in inches and (millimeters)

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

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
Marking Code		SR 320	SR 330	SR 340	SR 350	SR 360	SR 370	SR 380	SR 390	SR 3100	SR 3150	SR 3200	
Maximum repetitive peak reverse voltage	V_{RMM}	20	30	40	50	60	70	80	90	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	49	56	63	70	105	140	V
Maximum DC blocking voltage	V_{DC}	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)	$I_{(AV)}$	3.0											A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80											A
Maximum instantaneous forward voltage at 3.0A	V_F	0.55		0.70			0.85			0.95			V
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	I_R	0.5						0.2				mA	
		20.0			10.0			2.0					
Typical junction capacitance (NOTE 1)	C_J	250			160							pF	
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	40.0											°C/W
Operating junction and storage	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.

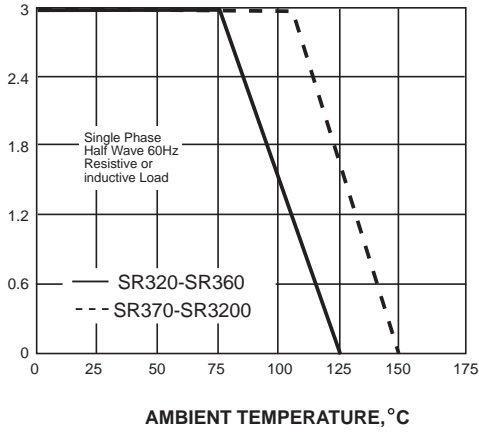
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

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Ratings And Characteristic Curves

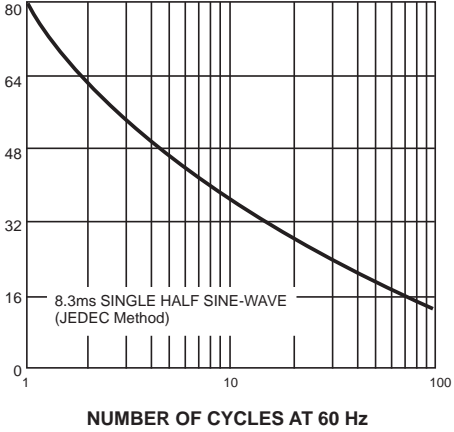
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



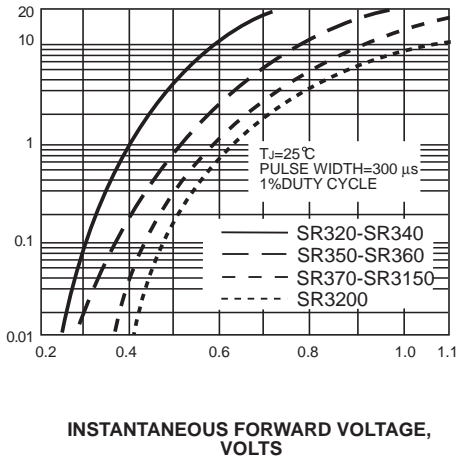
PEAK FORWARD SURGE CURRENT, AMPERES

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



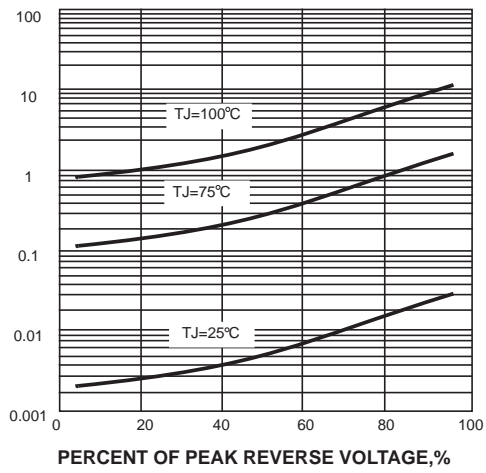
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



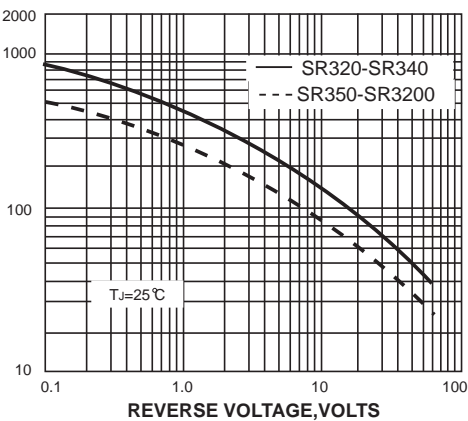
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

