



SR320L THRU SR3100L

Reverse Voltage - 20 to 1000 Volts Forward Current - 3.0 Ampere

SCHOTTKY BARRIER RECTIFIERS

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Idea for printed circuit board
- ◆ Fast switching for high efficiency
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed 250 °C/10 seconds at terminals

Mechanical Data

Case : JEDEC DO-41 Molded plastic body

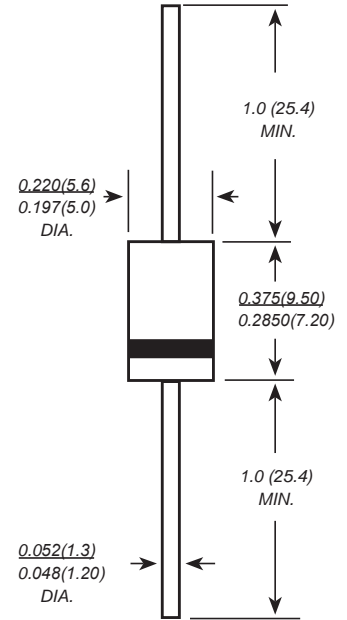
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.04 ounce, 1.10 grams

DO-201AD



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	MDD SR320L	MDD SR330L	MDD SR340L	MDD SR350L	MDD SR360L	MDD SR380L	MDD SR3100L	UNITS
Marking Code									
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	V
Maximum average forward rectified current at $T_A=75^\circ\text{C}$	$I_{(AV)}$	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	0.45			0.50		0.70		V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	0.5 20.0					0.2 10.0		mA
Typical junction capacitance (NOTE 1)	C_J	220			160				pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	40.0							$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-55 to +125					-55 to +150		$^\circ\text{C}$
Operating junction and storage temperature range	T_{STG}	-55 to +150							$^\circ\text{C}$

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



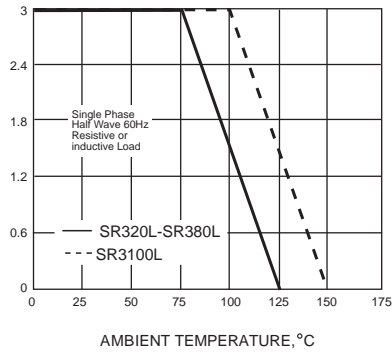
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Ratings And Characteristic Curves

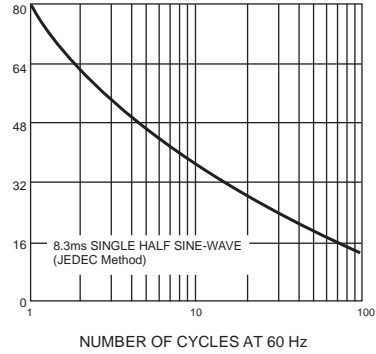
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



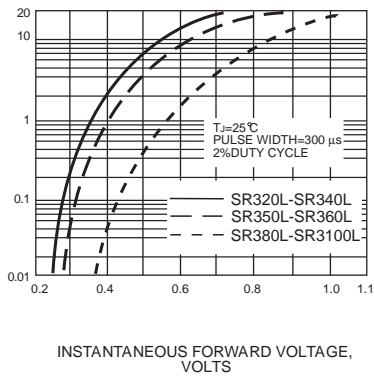
PEAK FORWARD SURGE CURRENT, AMPERES

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



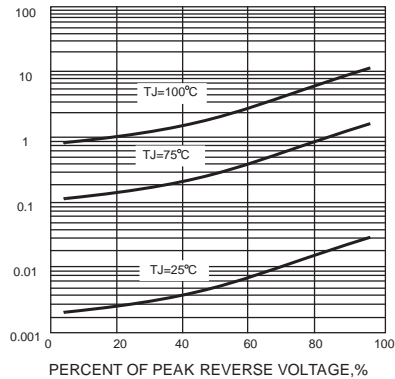
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



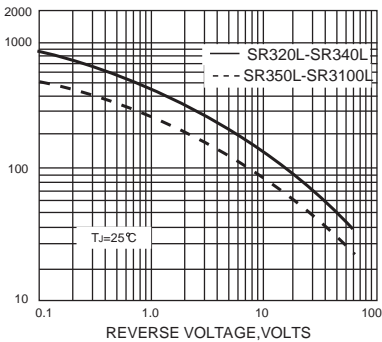
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



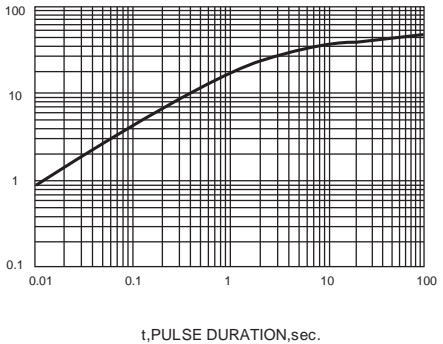
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.