

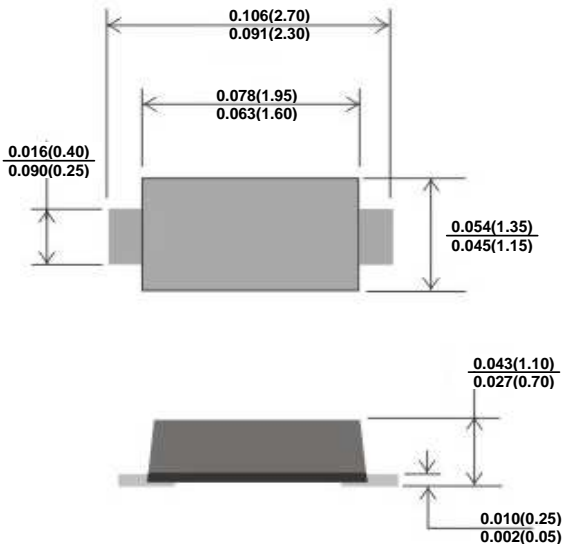


# RB551V-30

## SURFACE MOUNT SCHOTTKY BARRIER

Reverse Voltage - 30 Volts Forward Current - 0.5 Ampere

### SOD-323L



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Extremely low  $V_F$
- ◆ Low capacitance for reduced insertion losses
- ◆ Reverse voltage rating of 30V
- ◆ In compliance with EU RoHS 2002/95/EC directives
- ◆ High speed switching applications

### MECHANICAL DATA

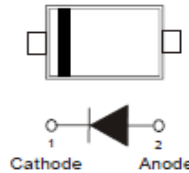
**Case:** JEDEC SOD-323L, Molded plastic

**Terminals:** Solderable per MIL-STD-750 Method 2026

**Approx. Weight:** 0.00014 ounces, 0.0041 grams

**Polarity:** Color band denotes cathode end

**Marking:** 551



### MAXIMUM RATED $T_J=25^\circ\text{C}$ unless otherwise noted

Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOLS	Value	UNITS
Peak Reverse Voltage $I_R=500\ \mu\text{A}$	$V_{RM}$	30	Volts
Continuous Reverse Voltage	$V_R$	20	Volts
Average Rectified Forward Current	$I_{F(AV)}$	0.5	Amp
Non-repetitive Peak Forward Current, 60 Hz Half Sine-Wave	$I_{FSM}$	5	Amps
Total Power Dissipation (note 1.)	$P_{TOT}$	200	mW
Typical Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	$T_J$	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

Note 1. FR-5 Board 1.0 x 0.75 x 0.062 in.

### ELECTRICAL CHARACTERISTICS $T_J=25^\circ\text{C}$ unless otherwise noted

PARAMETER	SYMBOLS	CONDITIONS	MIN	TYP	MAX	UNITS
Forward Voltage(Note 2.)	$V_F$	$I_F = 100\text{mA}$ $I_F = 500\text{mA}$	-	-	0.36 0.47	V
Reverse Leakage Current	$I_R$	$V_R = 20\text{V}$	-	-	100	$\mu\text{A}$
Total Capacitance	$C_T$	0V dc Bias, $f = 1\text{MHz}$ 10Vdc Bias, $f = 1\text{MHz}$	-	-	85 20	pF

Note 2. Short duration pulse test to avoid self-heating effect



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## RATINGS AND CHARACTERISTIC CURVES

FIG. 1-TYPICAL FORWARD CHARACTERISTICS

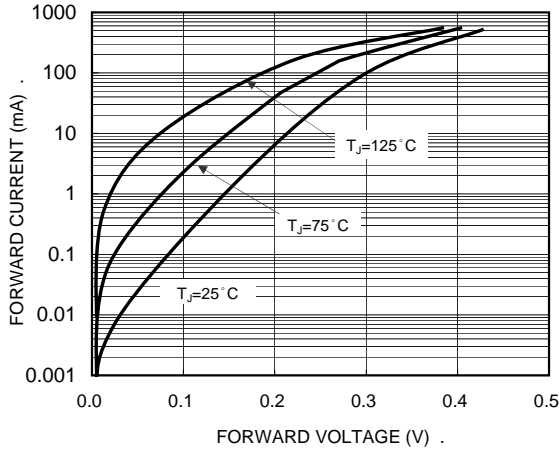


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

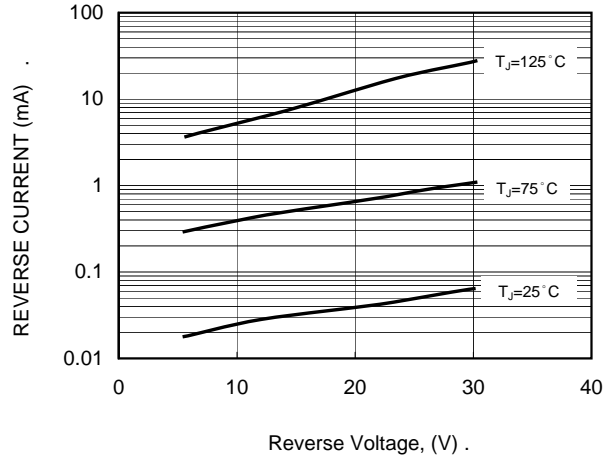
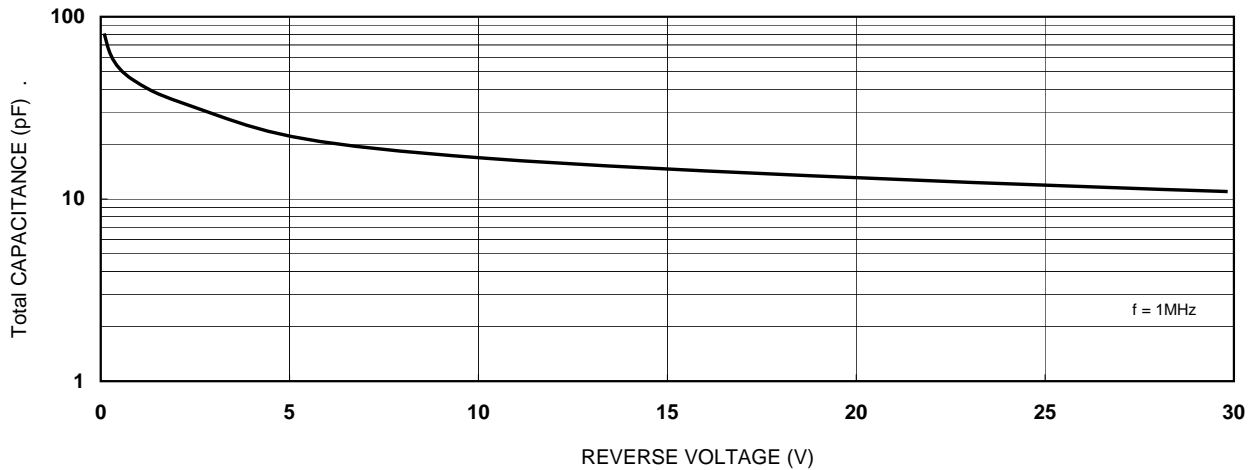


FIG. 2-TYPICAL Capacitance



## SOD-323L PACKAGE MOUNTING PAD LAYOUT

UNIT: inch(mm)

