



## SURFACE MOUNT SCHOTTKY DIODE

This device is an extremely fast Schottky diode housed in the ultra-small SOD-323 package. Ideal for applications where board space is at a

### FEATURES

- Extremely low Vf
- Low capacitance for reduced insertion losses
- Reverse voltage rating of 30V
- Also available in lead-free plating (100% matte tin finish)

### APPLICATIONS

- Mobile phones and accessories
- Hand-held computers
- High speed switching applications



Marking Code: 551

### MAXIMUM RATINGS $T_J = 25^\circ\text{C}$ Unless otherwise noted

Rating	Symbol	Value	Units
Peak Reverse Voltage	$V_{RM}$	30	V
Continuous Reverse Voltage	$V_R$	20	V
Average Rectified Forward Current	$I_{F(AV)}$	500	mA
Non-repetitive Peak Forward Current, 60Hz Half Sine-Wave	$I_{FSM}$	2	A
Total Power Dissipation (Note 1)	$P_{tot}$	200	mW
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.

### THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Units
Thermal Resistance, Junction to Ambient	$R_{thja}$	500	$^\circ\text{C}/\text{W}$



## ELECTRICAL CHARACTERISTICS

T<sub>j</sub> = 25°C Unless otherwise noted

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Forward Voltage (Note 2)	V <sub>F</sub>	I <sub>F</sub> = 200mA	-	-	0.36	V
		I <sub>F</sub> = 500mA	-	-	0.47	
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 20V	-	-	100	uA
Total Capacitance	C <sub>T</sub>	0Vdc Bias, f = 1 MHz	-	57	68	pF

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

## TYPICAL CHARACTERISTIC CURVES

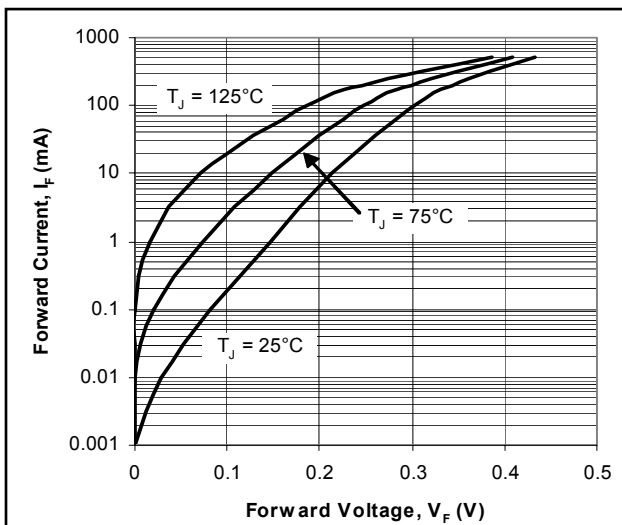


Fig. 2. Typical Forward Characteristics

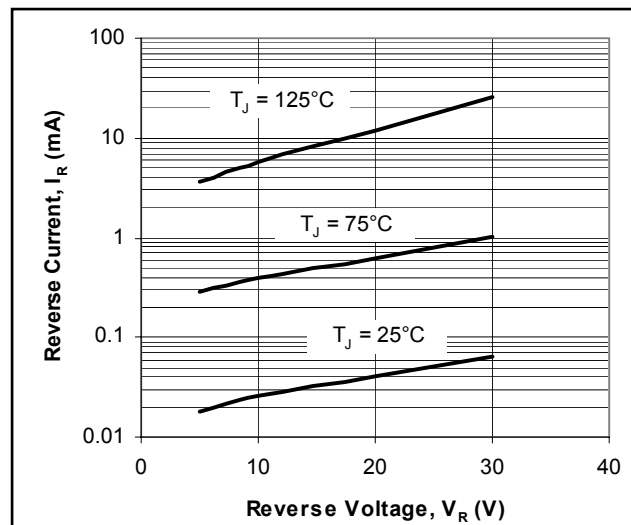


Fig. 3. Typical Reverse Characteristics

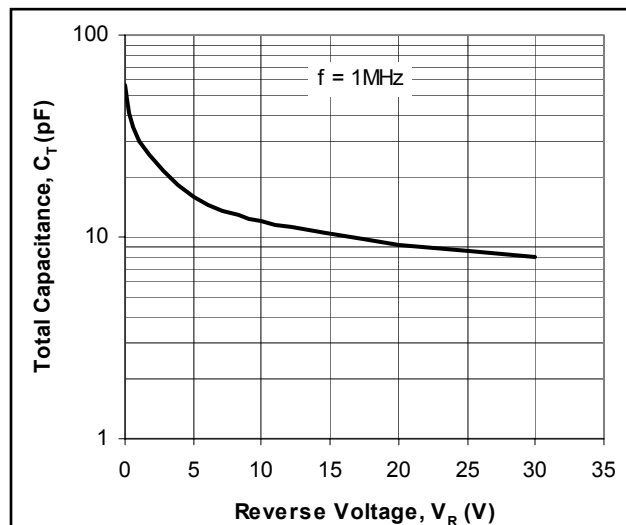
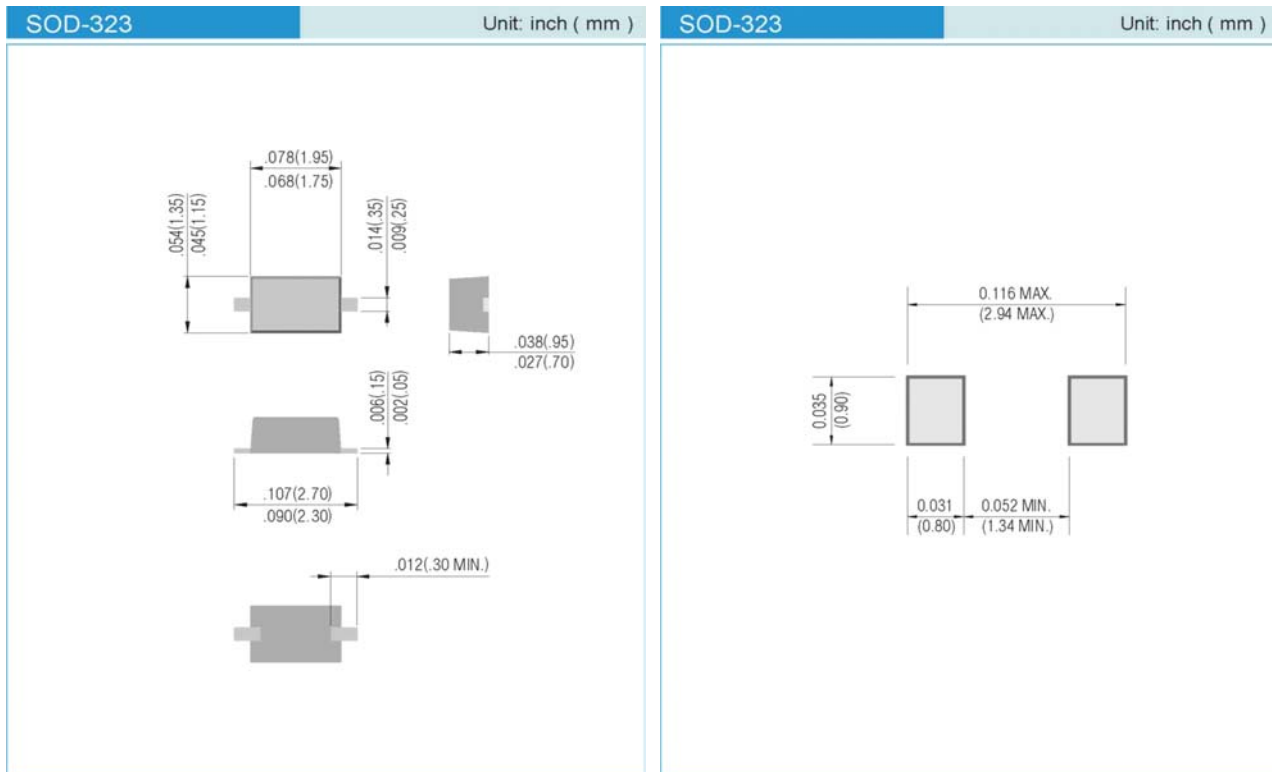


Fig. 4. Typical Capacitance



## PACKAGE LAYOUT AND SUGGESTED PAD DIMENSIONS



## ORDERING INFORMATION

RB551V30 T/R7 - 7" reel, 3K units per reel

RB551V30 T/R13 - 13" reel, 10K units per reel

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