



# RB551V-30

## SURFACE MOUNT SCHOTTKY DIODE

This device is an extremely fast Schottky diode housed in the ultra-small SOD-323 package.

### FEATURES

- Extremely low  $V_f$
- Low capacitance for reduced insertion losses
- Reverse voltage rating of 30V
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. (Halogen Free)

### APPLICATIONS

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

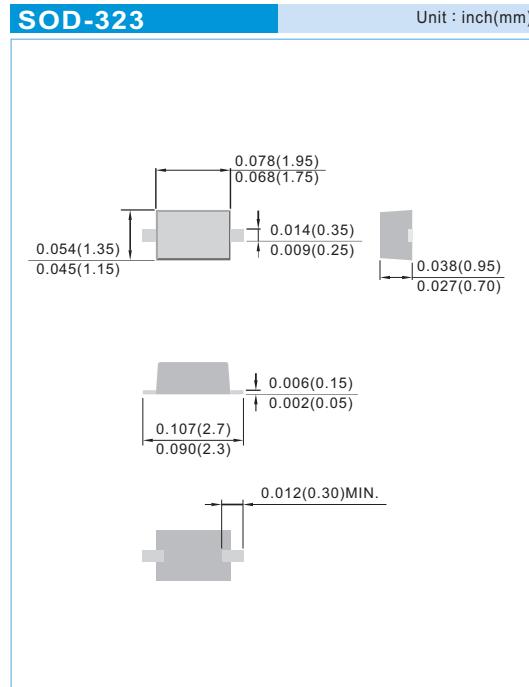
### MECHANICAL DATA

Case: SOD-323, Plastic

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

Approx. Weight: 0.00014 ounces, 0.0041 grams

Marking Code : 551



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

Rating	Symbol	Value	Units
Peak Reverse Voltage $I_R=500\mu\text{A}$	$V_{RM}$	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	$I_{FSM}$	5	A
Total Power Dissipation <sup>(1)</sup>	$P_{TOT}$	200	mW
Operating Junction Temperature Range	$T_J$	-55 to + 125	°C
Storage Temperature Range	$T_{STG}$	-55 to + 150	°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	$R_{\theta JA}$	500	°C/W



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

Parameter	Symbol	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	$C_T$	0Vdc Bias, $f = 1\text{MHz}$ 10Vdc Bias, $f = 1\text{MHz}$	-	-	85 20	$\text{pF}$

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

## TYPICAL CHARACTERISTIC CURVES

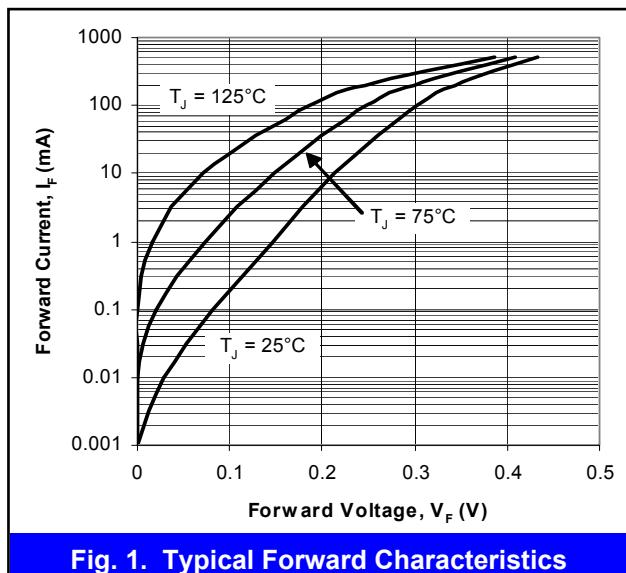


Fig. 1. Typical Forward Characteristics

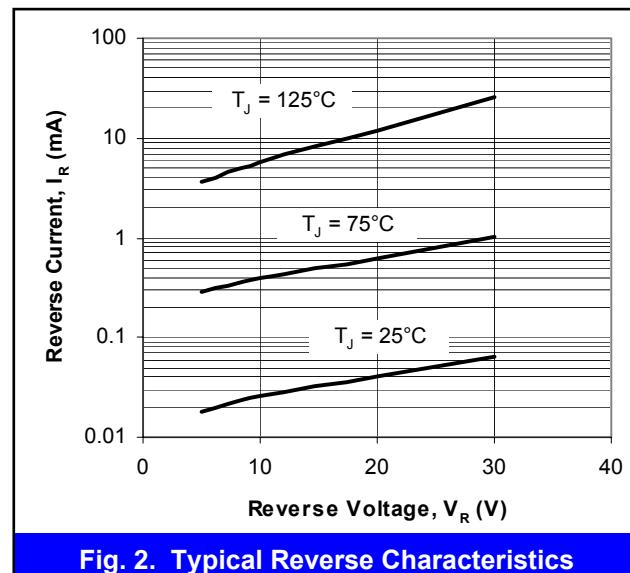


Fig. 2. Typical Reverse Characteristics

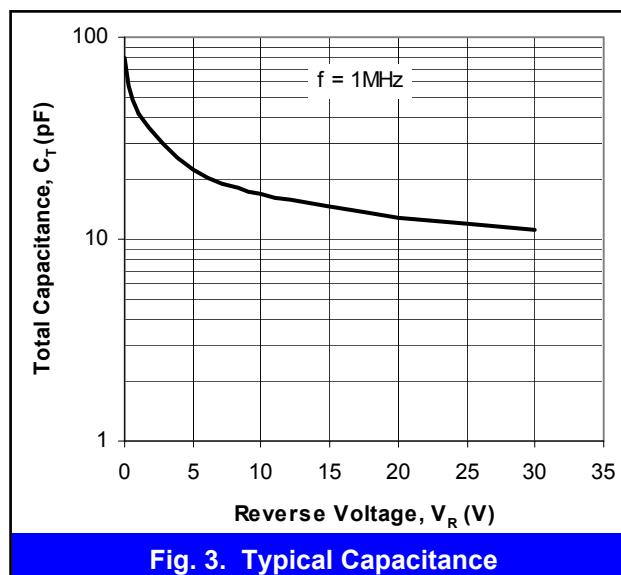


Fig. 3. Typical Capacitance

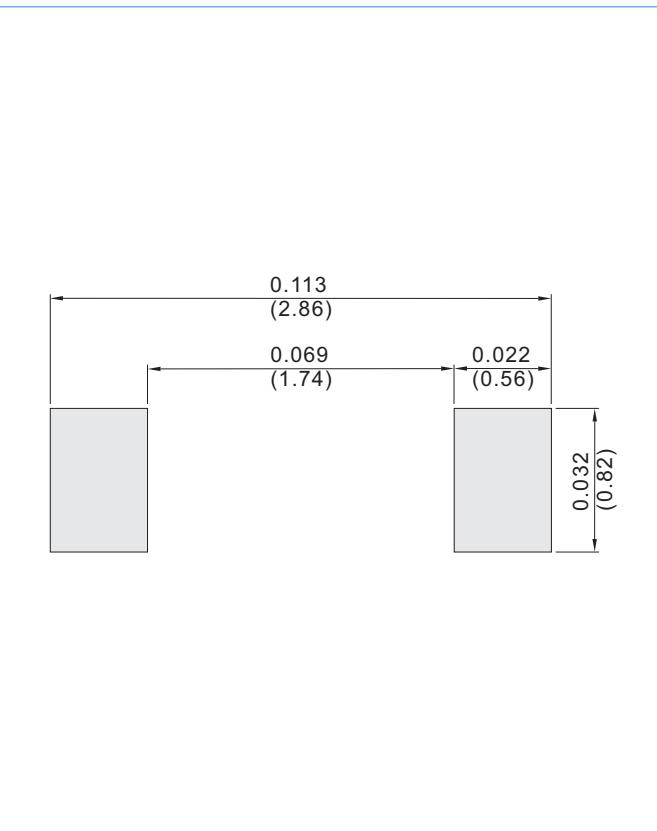


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## MOUNTING PAD LAYOUT

SOD-323

Unit : inch(mm)



## ORDER INFORMATION

- Packing information  
T/R - 12K per 13" plastic Reel  
T/R - 5K per 7" plastic Reel



## RB551V-30

### Part No\_packing code\_Version

RB551V-30\_R1\_00001

RB551V-30\_R2\_00001

For example :

RB500V-40\_R2\_00001

- Serial number
- Version code means HF
- Packing size code means 13"
- Packing type means T/R

Packing Code XX				Version Code XXXXX		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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