RB551V-30

SURFACE MOUNT SCHOTTKY DIODE

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

FEATURES

- Ultra low Vf
- Low capacitance for reduced insertion loesses
- Reverse voltage rating of 30V
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

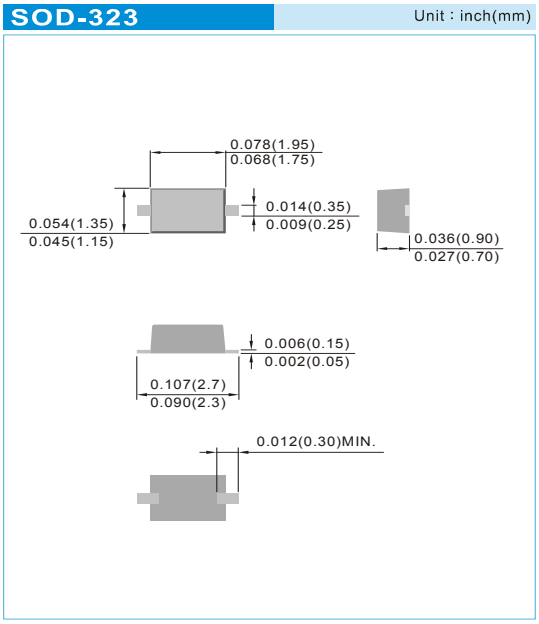
APPLICATIONS

- 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: 0.0001 ounces, 0.004 grams
- Marking Code : 551

SOD-323 Unit : inch(mm)



MAXIMUM RATINGS T_J=25°C unless otherwise noted

Rating	Symbol	Value	Units
Peak Reverse Voltage I_R=500μA	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 (Note1)	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 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°C unless otherwise noted

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Forward Voltage (Note 2)	V_F	I_F=100mA I_F=500mA	-	-	0.36 0.47	V
Reverse Leakage Current	I_R	V_R=20V	-	-	100	μA
TotalC apacitance	C_T	0Vdc Bias, f = 1MHz 10Vdc Bias, f = 1MHz	-	-	85 20	pF

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

TYPICAL CHARACTERISTIC CURVES

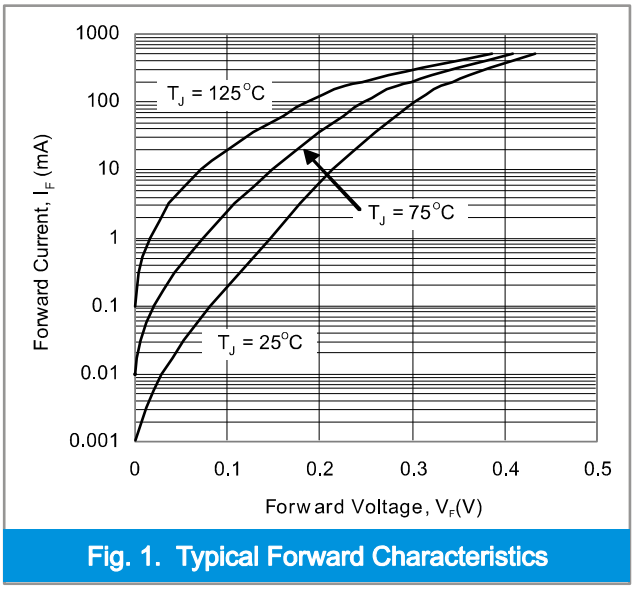


Fig. 1. Typical Forward Characteristics

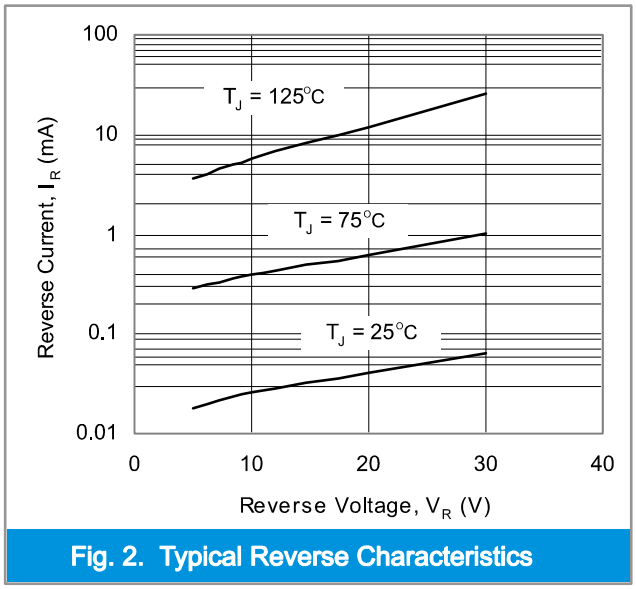


Fig. 2. Typical Reverse Characteristics

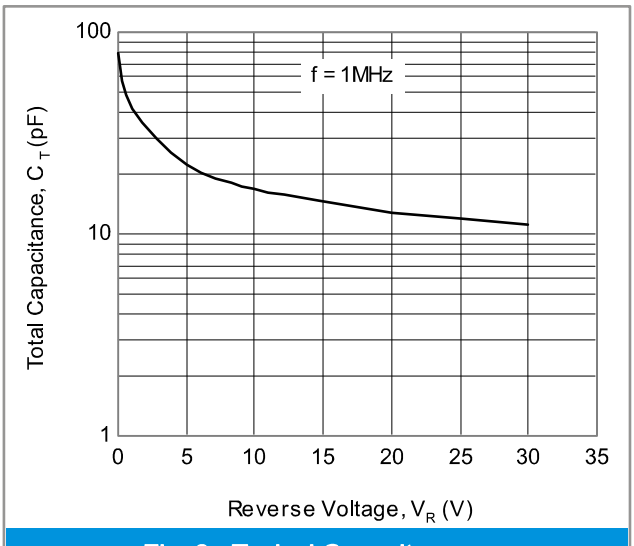


Fig. 3. Typical Capacitance

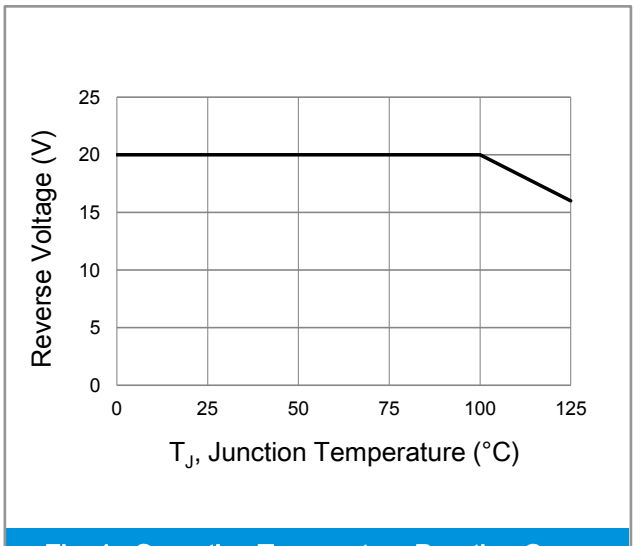
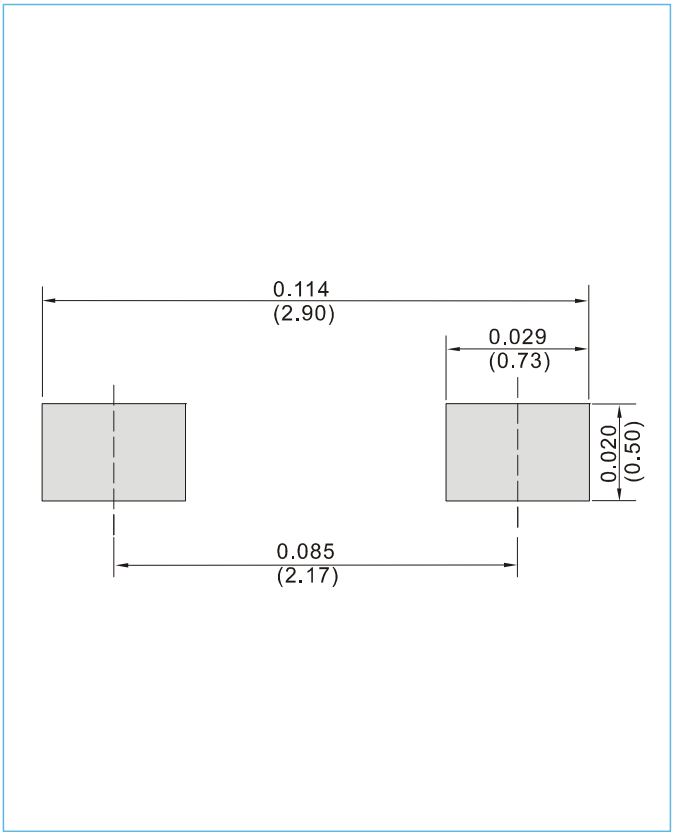


Fig. 4. Operating Temperature Derating Curve

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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

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Part No_packing code_Version

RB551V-30_R1_00001

RB551V-30_R2_00001

For example :

RB500V-40_R2_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th 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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