

## RB751V-40WS

### 200mW, Low $V_F$ SMD Schottky Barrier Diode

#### Small Signal Diode



#### Features

- ✧ Low power loss, high current capability, low  $V_F$ , low  $I_R$
- ✧ Surface device type mounting
- ✧ Moisture sensitivity level 1
- ✧ Pb free version and RoHS compliant
- ✧ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

#### Mechanical Data

- ✧ Case : Flat lead SOD-323F small outline plastic package
- ✧ Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧ High temperature soldering guaranteed: 260°C/10s
- ✧ Polarity : Indicated by cathode band
- ✧ Weight : 4.6 ± 0.5 mg
- ✧ Marking Code : S8

#### Ordering Information

Package	Part No.	Packing	Marking
SOD-323F	RB751V-40WS RR	3K / 7" Reel	S8
SOD-323F	RB751V-40WS RRG	3K / 7" Reel	S8

#### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

#### Maximum Ratings

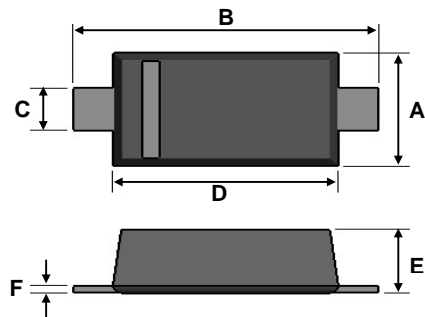
Type Number	Symbol	Value	Units
Power Dissipation	$P_D$	200	mW
Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Reverse Voltage (DC)	$V_R$	30	V
Average Forward Current	$I_o$	30	mA
Non-Repetitive Peak Forward Surge Current (Note 1)	$I_{FSM}$	0.2	A
Thermal Resistance (Junction to Ambient)	$R_{\theta JA}$	500	°C/W
Junction Temperature	$T_J$	125	°C
Storage Temperature Range	$T_{STG}$	-40~125	°C

Notes: 1. Test Condition : 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)

2. ESD sensitive product handling required.

3. The suggested land pattern dimensions have been provided for reference only, as actual pad layouts may vary depending on application.

#### SOD-323F



Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.15	1.40	0.045	0.055
B	2.30	2.80	0.091	0.110
C	0.25	0.40	0.010	0.016
D	1.60	1.80	0.063	0.071
E	0.80	1.10	0.031	0.043
F	0.05	0.15	0.002	0.006

#### Pin Configuration



#### Suggested PAD Layout



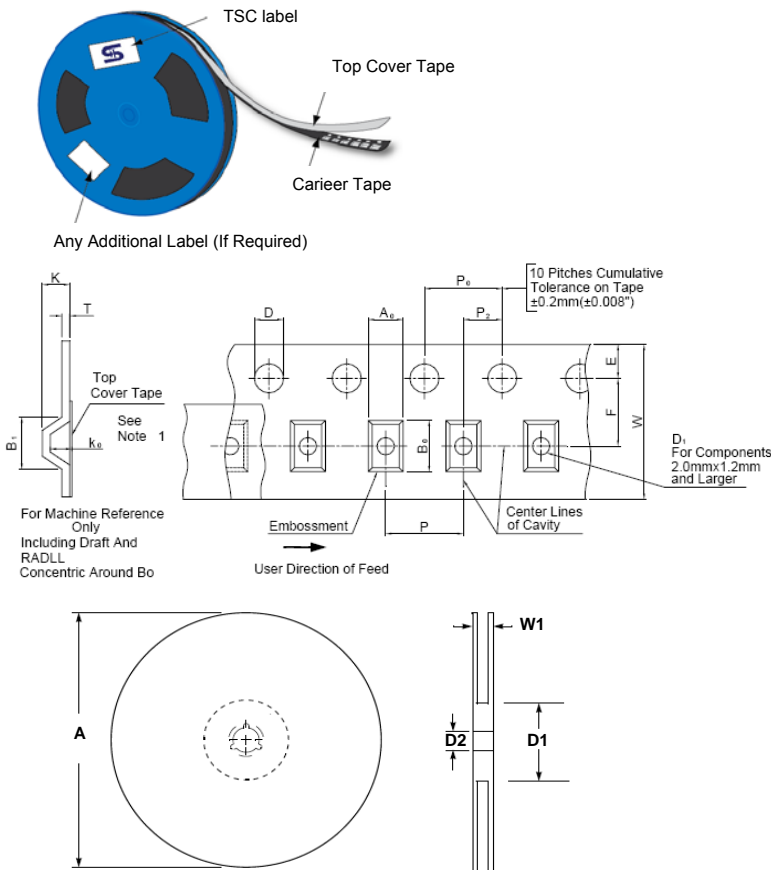
Dimensions	Value (in mm)
X	0.710
X1	2.900
Y	0.403

**Small Signal Diode**

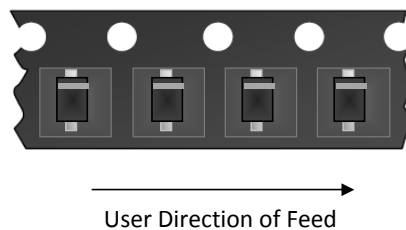
**Electrical Characteristics**

Type Number		Symbol	Typical	Max	Units
Forward Voltage	$I_F=1.0mA$	$V_F$	-	0.37	V
Reverse Leakage Current	$V_R=30V$	$I_R$	-	0.5	$\mu A$
Junction Capacitance	$V_R=1V, f=1.0MHz$	$C_J$	2	-	pF

**Tape & Reel specification**



Item	Symbol	Dimension(mm)
Carrier depth	K	2.40 Max.
Sprocket hole	D	1.50 +0.10
Reel outside diameter	A	178 $\pm$ 1
Reel inner diameter	D1	50 Min.
Feed hole width	D2	13.0 $\pm$ 0.5
Sprocket hole position	E	1.75 $\pm$ 0.10
Punch hole position	F	3.50 $\pm$ 0.05
Sprocket hole pitch	P0	4.00 $\pm$ 0.10
Embossment center	P1	2.00 $\pm$ 0.10
Overall tape thickness	T	0.6 Max.
Tape width	W	8.30 Max.
Reel width	W1	14.4 Max.



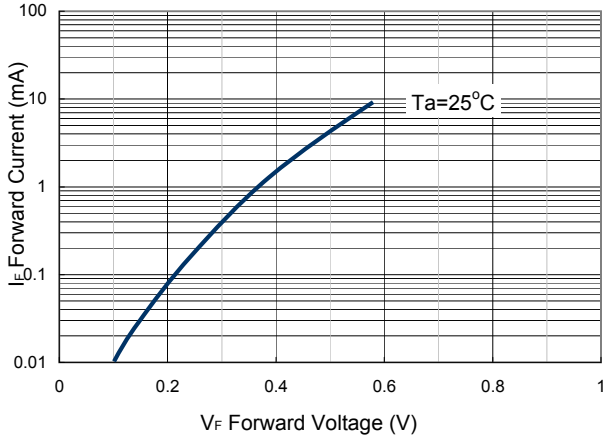
Note 1: A0, B0, and K0 are determined by component size. The clearance between the components and the cavity must be within 0.05 mm min. to 0.5 mm max. The component cannot rotate more than 10° within the determined cavity.

Note 2: If B1 exceeds 4.2 mm(0.165") for 8 mm embossed tape, the tape may not feed through all tape feeders.

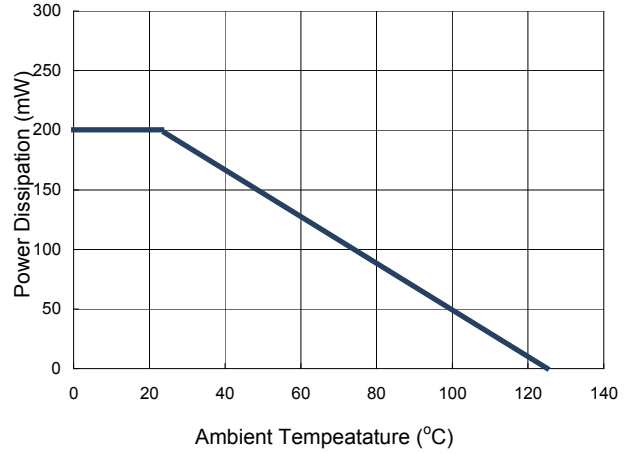
**Small Signal Diode**

**Rating and Characteristic Curves**

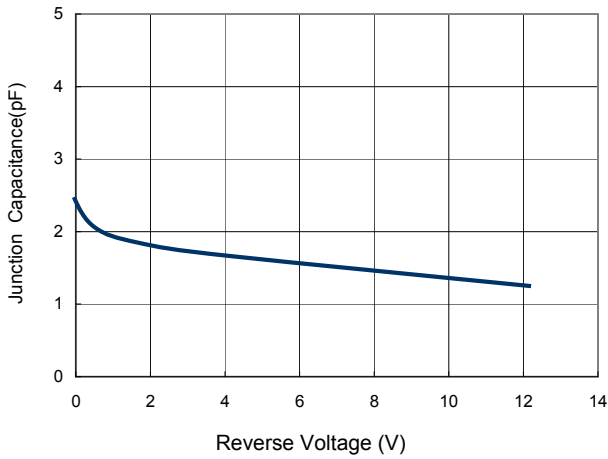
**FIG 1 Typical Forward Characteristics**



**FIG 2 Admissible Power Dissipation Curve**



**FIG 3 Typical Junction Capacitance**



**FIG 4 Typical Reverse Characteristics**

