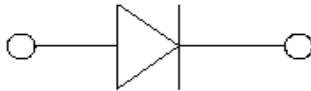


## Schottky Barrier Diode



### Features

- For Power Supply
- Moisture Sensitivity Level 1
- Low Voltage, Low Inductance

### Mechanical Data

- **Package:** SOD-323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** D4

### ■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
DC Blocking Voltage	$V_R$	V		40
Non-repetitive Peak forward surge current	$I_{FSM}$	A		2
Repetitive Peak Forward Current	$I_{FRM}$	A	$t_p=1ms, \delta=0.25$	1
Average forward current	$I_{FAV}$	A		0.5
Power Dissipation	$P_D$	mW		200
Thermal Resisitance Junction to Ambient Air	$R_{\theta JA}$	°C/W		500
Junction temperature	$T_j$	°C		125
Storage temperature range	$T_{stg}$	°C		-55 to +150

\*Part mounted on FR-4 board with recommended pad layout.

### ■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
RB551V-40	F2	Approximate 0.0048	3000	30000	120000	7" reel



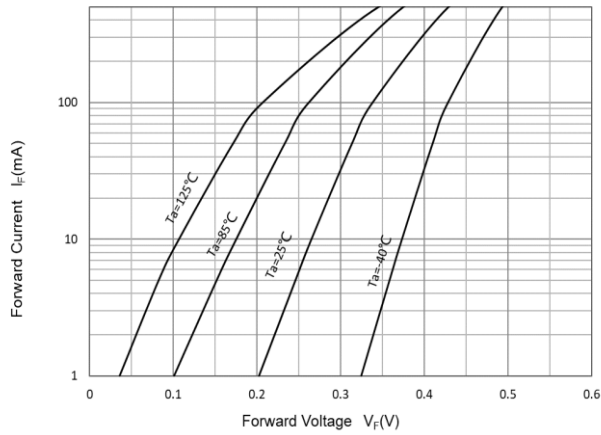
# RB551V-40

## ■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

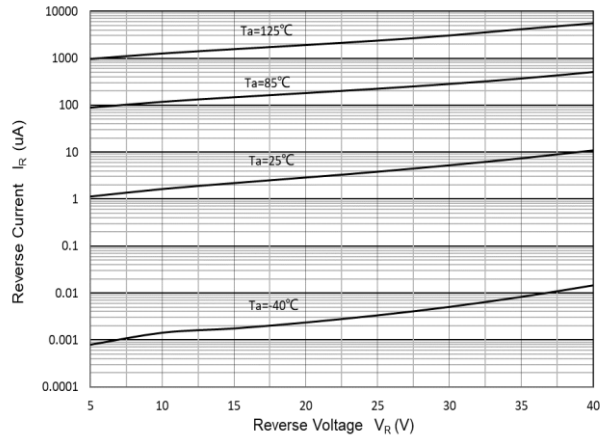
PARAMETER	Symbol	UNIT	Conditions	Min.	Typ.	Max.
Forward Voltage *	$V_F$	V	$I_F=0.5A$	-	-	0.47
Reverse Voltage	$V_R$	V	$I_R=0.1mA$	40		
Reverse Leakage Current	$I_R$	$\mu A$	$V_R=40V$	-	-	100

## ■ Typical Characteristics

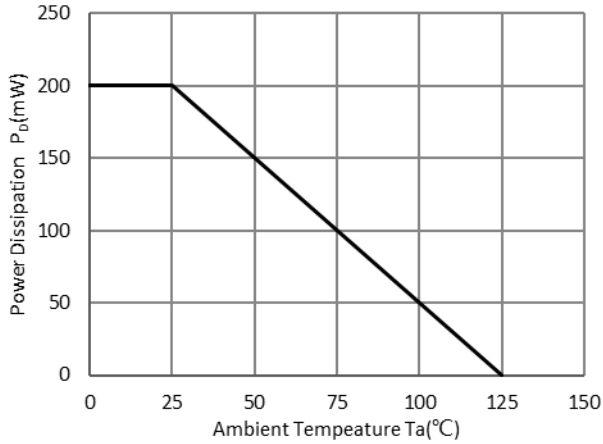
**Fig 1: Typical Forward Characteristics**



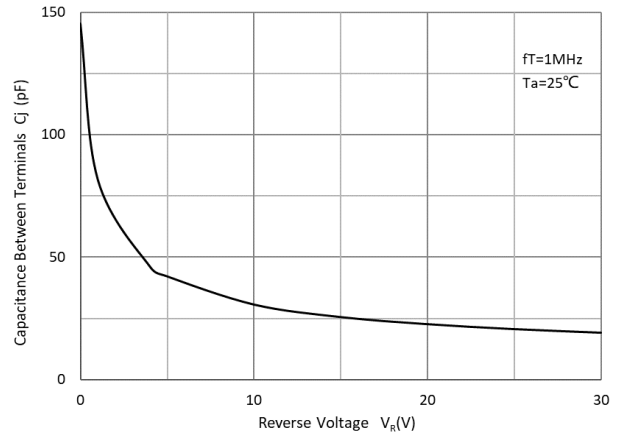
**Fig 2: Typical Reverse Characteristics**



**Fig 3: P<sub>D</sub>-Ta Curve**

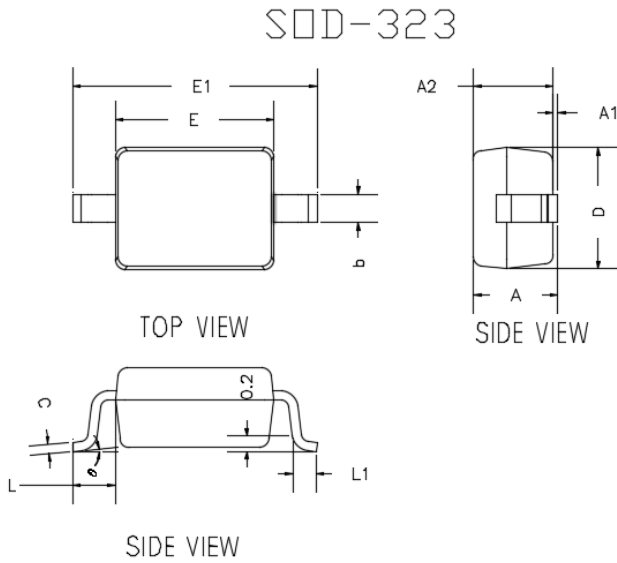


**Fig 4: Capacitance Capability**





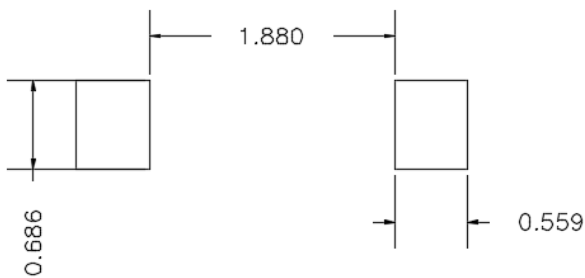
■ Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	---	0.0393	---	1.0000
A1	0.0000	0.0039	0.0000	0.1000
A2	0.0314	0.0354	0.8000	0.9000
b	0.0098	0.0157	0.2500	0.4000
c	0.0031	0.0059	0.0800	0.1500
D	0.0472	0.0551	1.2000	1.4000
E	0.0629	0.0709	1.6000	1.8000
E1	0.0984	0.1063	2.5000	2.7000
L	0.0187TYP		0.475TYP	
L1	0.0098	0.0157	0.250	0.400
e	0°	8°	0°	8°

- NOTES:
- All dimensions are in millimeters (mm) unless otherwise specified.  
[所有尺寸均以毫米为单位, 除非另有说明]
  - General tolerances: ±0.10mm unless otherwise specified.  
[通用公差为±0.10mm, 除非另有说明]
  - Dimensions and tolerances per ASME Y14.5M-2018.  
[尺寸和公差遵循 ASME Y14.5M-2018 标准]
  - All dimensions shown are exclusive of burrs and gate residues.  
Burr and gate vestiges shall not exceed 0.15 mm in maximum.  
[所有尺寸均不包括毛刺和浇口残留。毛刺与浇口残留的尺寸最大不得超过 0.15mm]
  - Dimension b does not include dambar protrusion of max 0.100 mm per side.  
[尺寸b不包括单边最大0.100 MM的中筋凸出部分]
  - Dimensions D and E are the overall extreme outer dimensions of the mold compound. These dimensions exclude mold flash, lead flash, protrusions and burrs but include the maximum allowable mold mismatch.  
[D和E是塑封体的外部极限尺寸, 不包括包封溢料、内引线溢料、凸出部分以及胶体毛刺, 但是包含了包封错位的最大尺寸]
  - Formed leads shall be planar with respect to one another within a maximum of 0.076 mm relative to the seating plane.  
[成型的管脚应为同一平面, 共面性最大为0.1mm]

■ Soldering Footprint



UNIT : mm

SUGGESTED SOLDER PAD LAYOUT



## RB551V-40

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