

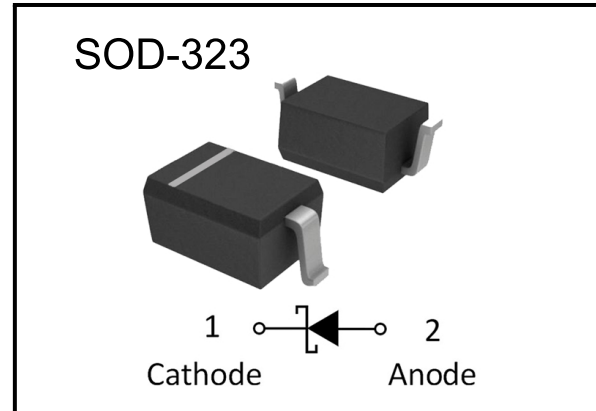
# RB501V-40

Schottky Barrier Diode

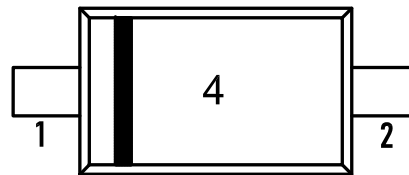
## Features

- Low current rectifier schottky diode.
- Low voltage, low inductance.
- For power supply.

## Package



## Marking



## Ordering information

Order code	Package	Marking	Base qty	Delivery mode
RB501V-40	SOD-323	4	3K	Tape and reel

## Maximum Ratings (@T<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>RM</sub>	Peak Reverse Voltage	45	V
V <sub>R</sub>	DC Blocking Voltage	40	
I <sub>O</sub>	Mean rectifying current	0.1	A
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current @8.3mS	1	A
P <sub>D</sub>	Power Dissipation	200	mW
R <sub>θJA</sub>	Thermal Resistance From Junction To Ambient	500	°C/ W
T <sub>j</sub>	Operating junction Temperature Range	-40 to +125	°C
T <sub>STG</sub>	Storage temperature Range	-55 to +150	°C

## Electrical Characteristics (@T<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
V <sub>BR</sub>	Reverse breakdown voltage	I <sub>R</sub> =1mA	40	–	–	V
I <sub>R</sub>	Reverse voltage leakage current	V <sub>R</sub> =10V	–	–	30	μA
V <sub>F</sub>	Forward voltage	I <sub>F</sub> =10mA	–	–	0.34	V
		I <sub>F</sub> =100mA	–	–	0.55	
C <sub>T</sub>	Diode capacitance	V <sub>R</sub> =10V, f=1MHZ	–	6	–	pF

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Typical Performance Characteristics ( $T_J = 25^\circ\text{C}$ , unless otherwise noted)

Figure 1: Forward Characteristics

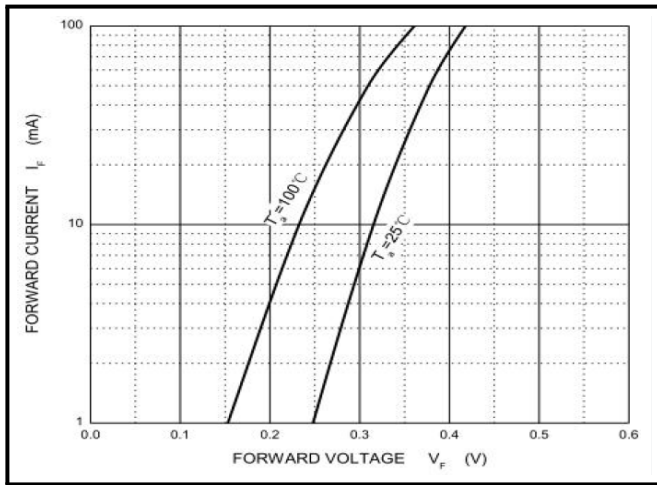


Figure 2: Reverse Characteristics

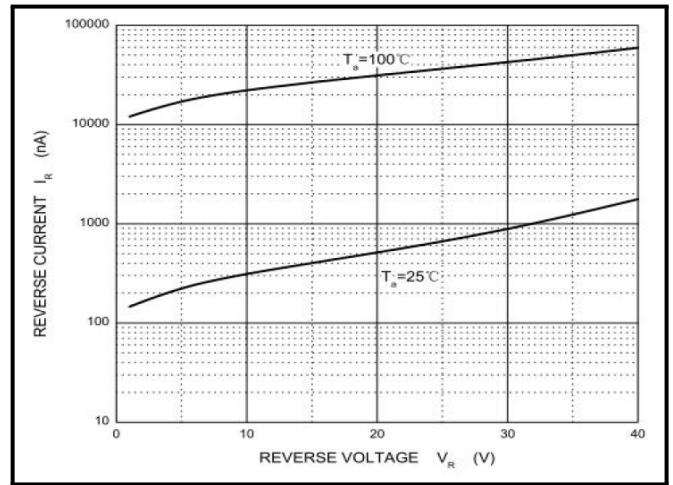


Figure 3: Capacitance Characteristics

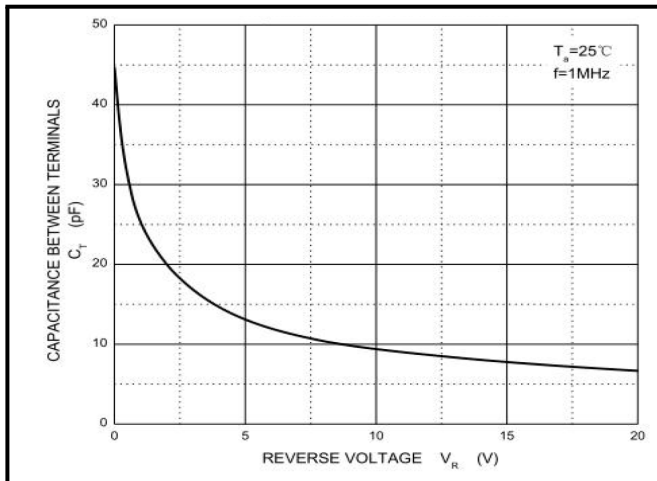
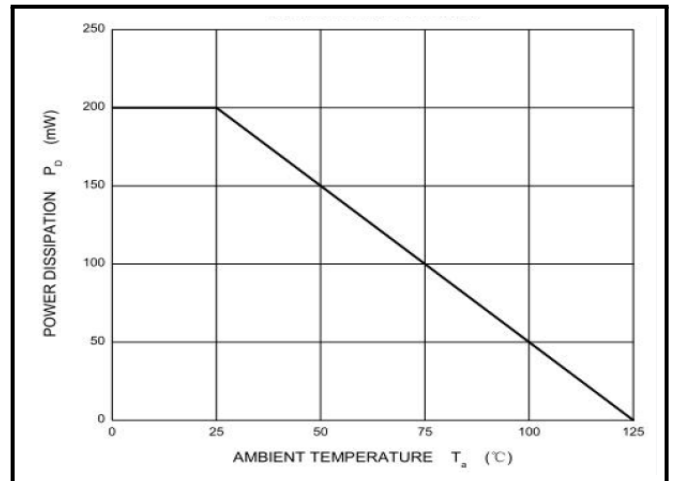


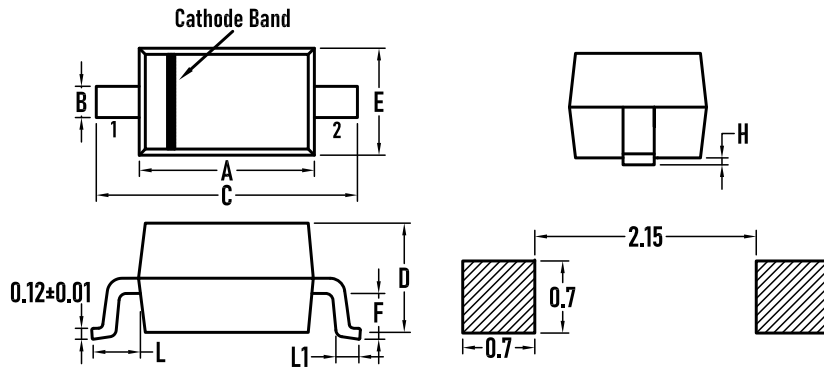
Figure 4: Power Derating Curve



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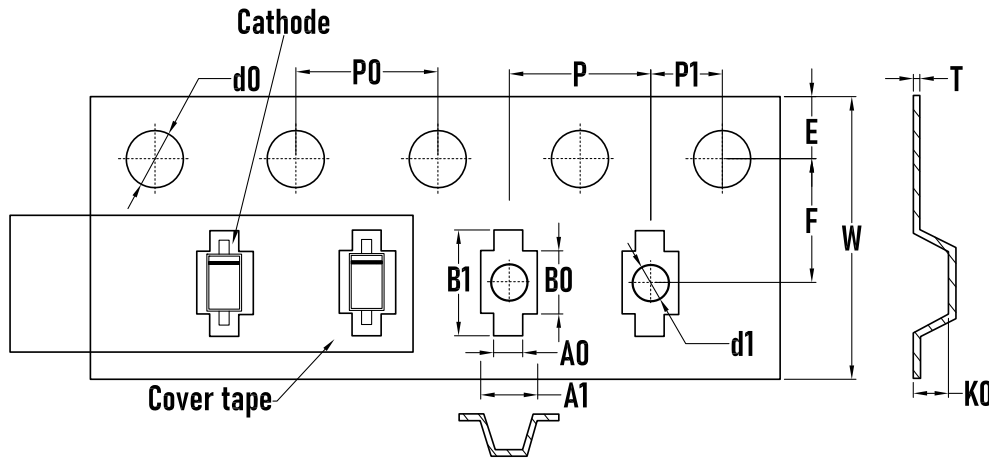
Schottky Barrier Diode

## Outline Drawing - SOD-323



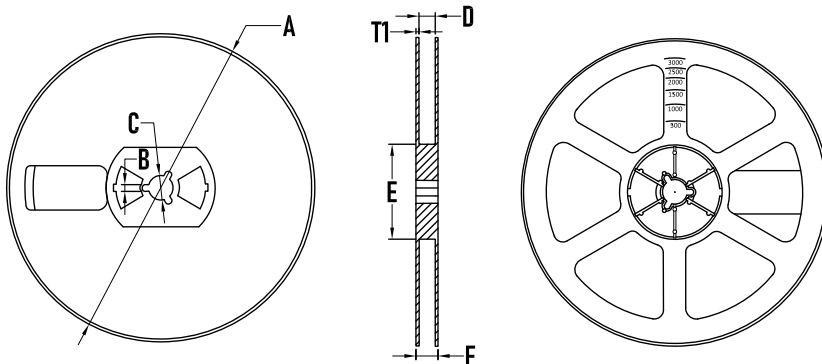
SYMBOL	MILLIMETER		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	1.600	1.800	0.063	0.071
B	0.250	0.350	0.010	0.014
C	2.500	2.700	0.098	0.106
D	–	1.000	–	0.039
E	1.200	1.400	0.047	0.055
F	0.080	0.150	0.003	0.006
L	0.475REF		0.019REF	
L1	0.250	0.400	0.010	0.016
H	0.000	0.100	0.000	0.004

## Packaging Tape - SOD-323



SYMBOL	MILLIMETER
A0	0.80±0.10
A1	1.48±0.10
B0	1.80±0.10
B1	3.00±0.10
d0	1.55±0.10
d1	1.00±0.05
E	1.75±0.10
F	3.50±0.10
K0	1.05±0.10
P	4.00±0.10
P0	4.00±0.10
P1	2.00±0.10
W	8.00±0.30
T	0.25 ±0.05

## Packaging Reel



SYMBOL	MILLIMETER
A	177.8±0.2
B	2.7±0.2
C	13.5±0.2
D	9.6±0.3
E	54.5±0.2
F	12.3±0.3
T1	1.0±0.2
Quantity	3000PCS

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