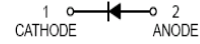




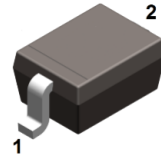
Features

- Low reverse current and low forward voltage
- High reliability
- Small surface mounting type



Application

- Low current rectification



Mechanical Data

- Case: SOD-323
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

SOD-323

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
RB501V-40	SOD-323	3000 pcs / Tape & Reel	4

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V _{RM}	45	V
DC Blocking Voltage	V _R	40	V
Forward Continuous Current	I _F	0.1	A
Peak Forward Surge Current, 8.3ms Single Half-sine-wave	I _{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	200	mW
Thermal Resistance (Junction-to-Ambient) *1	R _{θJA}	300	°C/W
Thermal Resistance (Junction-to-Case) *1	R _{θJC}	170	°C/W
Thermal Resistance (Junction-to-Lead) *1	R _{θJL}	230	°C/W
Operating junction Temperature	T _J	-40 ~ +125	°C
Storage Temperature Range	T _{STG}	-40 ~ +150	°C

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 1\text{mA}$	40	-	-	V
Forward Voltage	V_{F1}	$I_F = 10\text{mA}$	-	-	0.34	V
	V_{F2}	$I_F = 100\text{mA}$	-	-	0.55	V
Maximum Peak Reverse Current	I_R	$V_R = 10\text{V}$	-	-	30	μA
Typical Junction Capacitance	C_J	$V_R = 10\text{V}, f = 1\text{MHz}$	-	6	-	pF

Note 1: The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

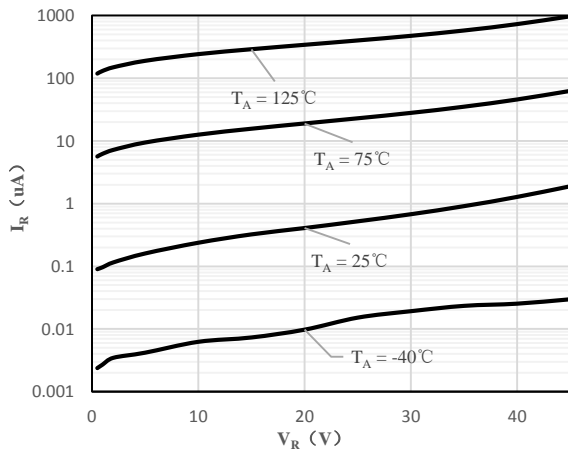


Fig 1 Typical Reverse Characteristic

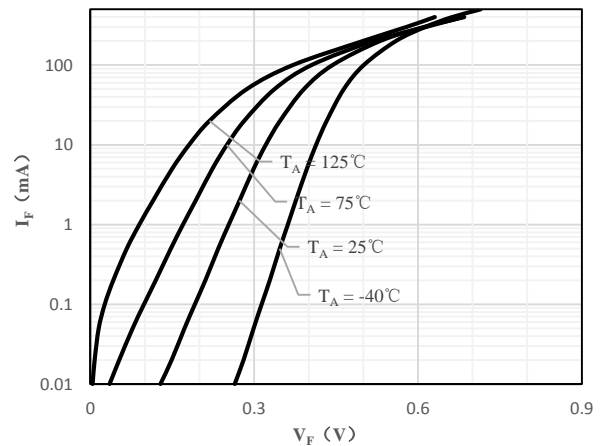


Fig 2 Typical Forward Characteristics

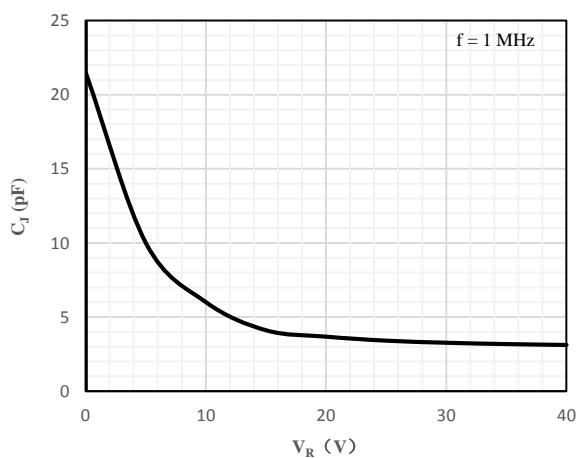


Fig 3 Capacitance Characteristics

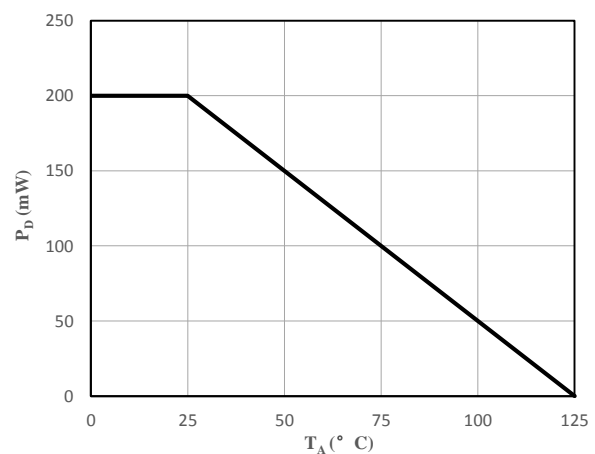
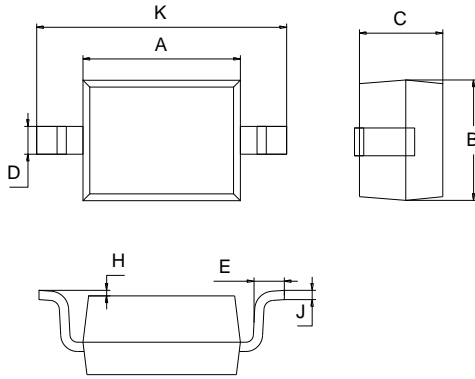


Fig 4 Power Derating Curve

Package Outline Dimensions (Unit: mm)



SOD-323		
Dimension	Min.	Max.
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

Mounting Pad Layout (Unit: mm)

SOD-323

