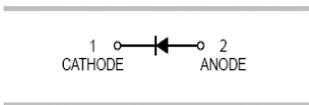
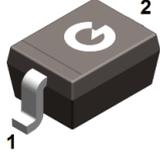


<h3>Features</h3> <ul style="list-style-type: none"> • Low reverse current and low forward voltage • High reliability • Small surface mounting type <h3>Application</h3> <ul style="list-style-type: none"> • Low current rectification <h3>Mechanical Data</h3> <ul style="list-style-type: none"> • Case: SOD-323 • Molding Compound: UL Flammability Classification Rating 94V-0 • Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208 	<div style="border: 1px solid black; padding: 5px; width: 40px; margin: 0 auto;">HF</div>	  <p style="color: blue; font-weight: bold;">SOD-323</p>
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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)

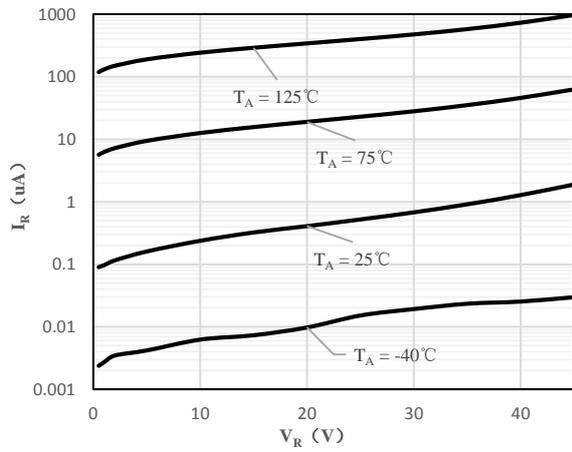


Fig 1 Typical Reverse Characteristic

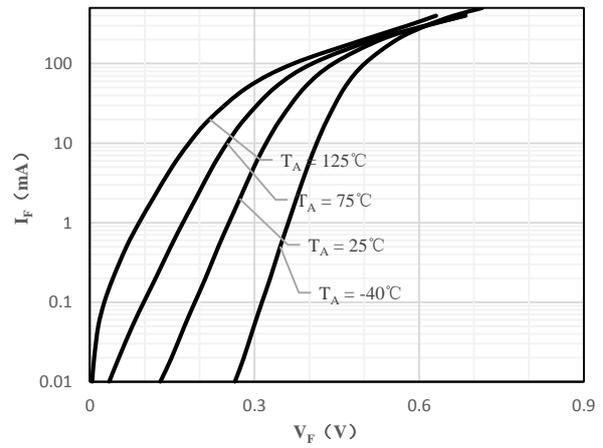


Fig 2 Typical Forward Characteristics

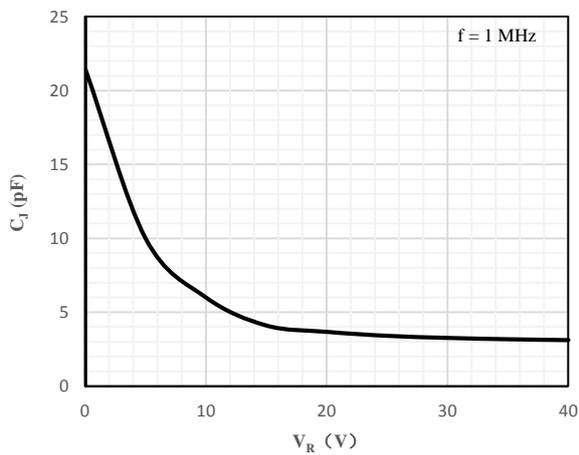


Fig 3 Capacitance Characteristics

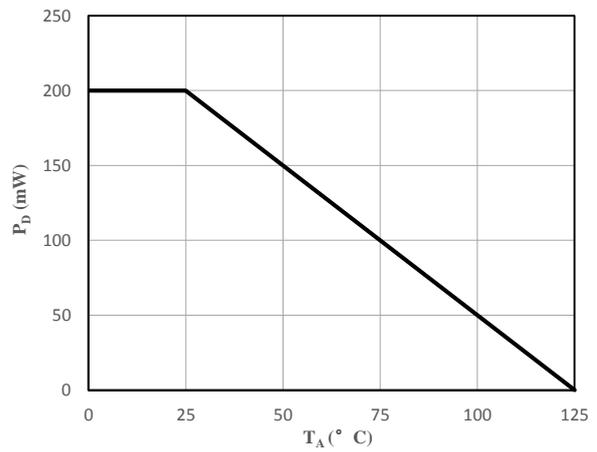
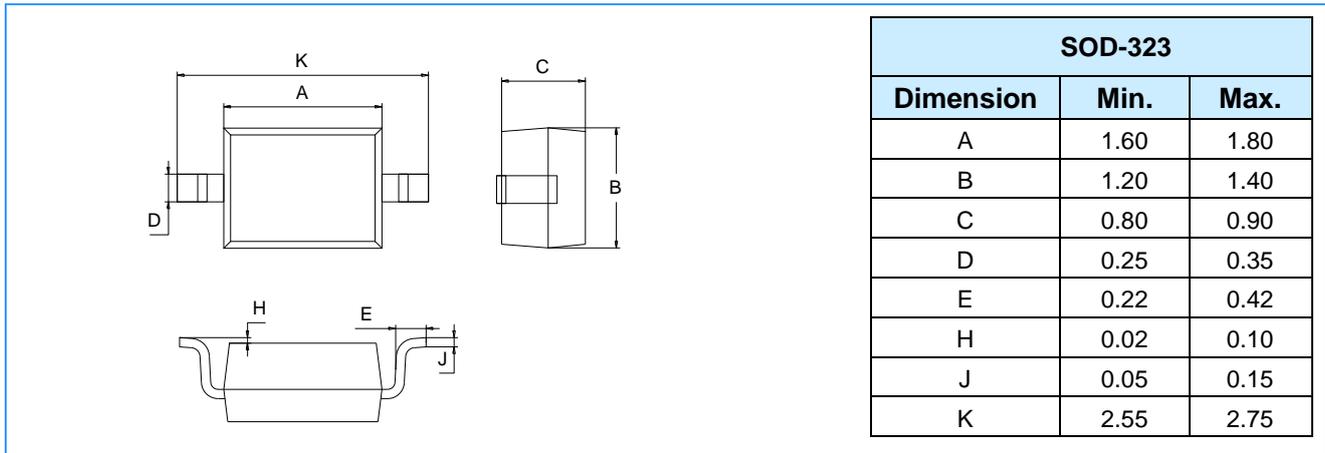
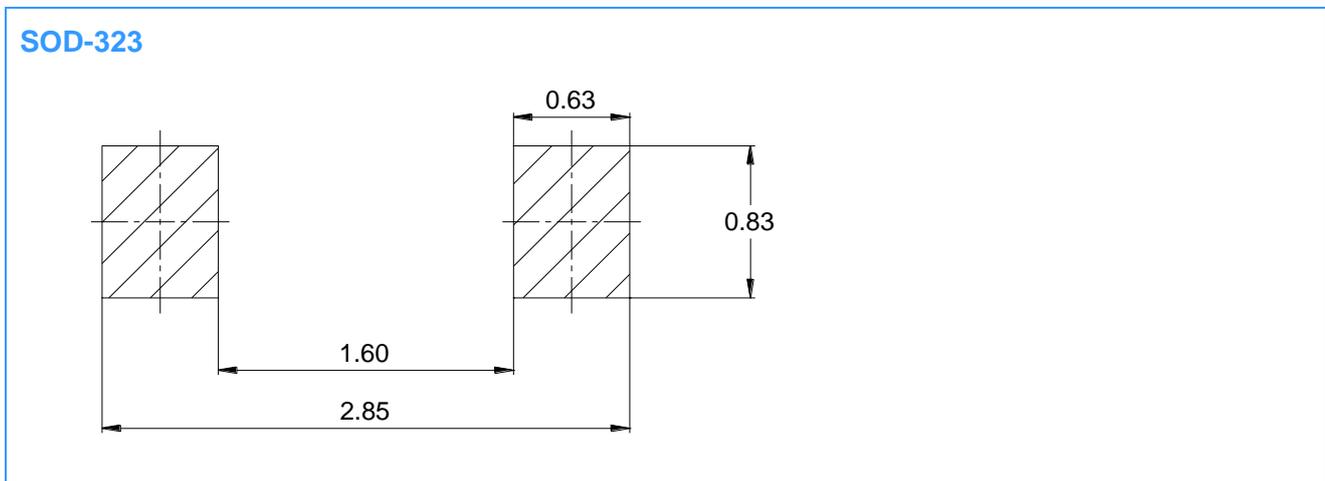


Fig 4 Power Derating Curve

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



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