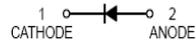


Features

- High current rectifier schottky diode
- Low voltage
- Low inductance
- For power supply

HF



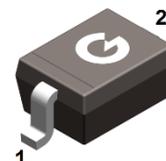
 1 CATHODE 2 ANODE

Application

- High frequency 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
RB551V-30	SOD-323	3000 pcs / Tape & Reel	D

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	30	V
DC Reverse Voltage	V _R	20	V
Maximum Average Forward Output Current	I _{F(AV)}	0.5	A
Peak Forward Surge Current (8.3ms single half sine-wave)	I _{FSM}	2	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance Junction-to-Air ^{*1}	R _{θJA}	350	°C/W
Thermal Resistance Junction-to-Case ^{*1}	R _{θJC}	200	°C/W
Thermal Resistance Junction-to-Lead ^{*1}	R _{θJL}	250	°C/W
Operating junction Temperature	T _J	-40 ~ +100	°C
Storage Temperature Range	T _{STG}	-40 ~ +125	°C

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 100\mu\text{A}$	20	-	-	V
Forward Voltage ²	V_F	$I_F = 100\text{mA}$	-	-	0.36	V
		$I_F = 500\text{mA}$	-	-	0.47	V
Maximum Peak Reverse Current	I_R	$V_R = 20\text{V}$	-	-	100	μA
Typical Junction Capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$	-	-	120	pF

Notes:

- The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper
- The data tested by pulsed, pulse width $\leq 380\mu\text{s}$, duty cycle $\leq 2\%$

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

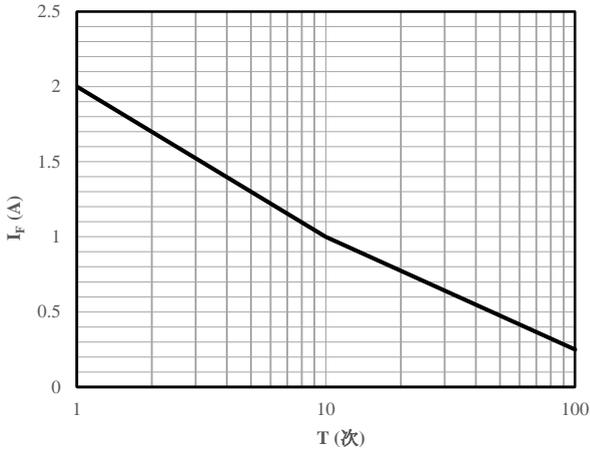


Fig 1 Peak Forward Surge Current

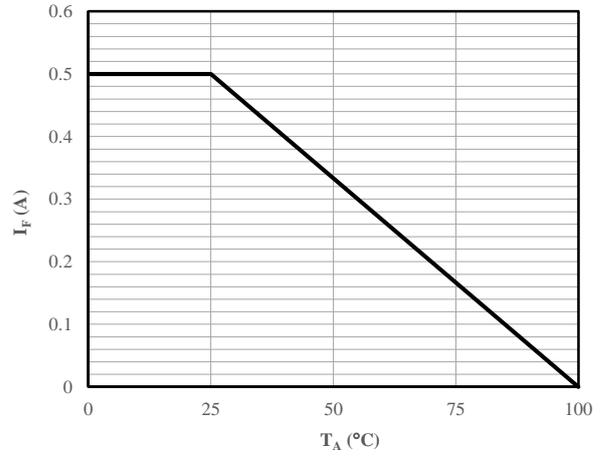


Fig 2 Current Derating Curve

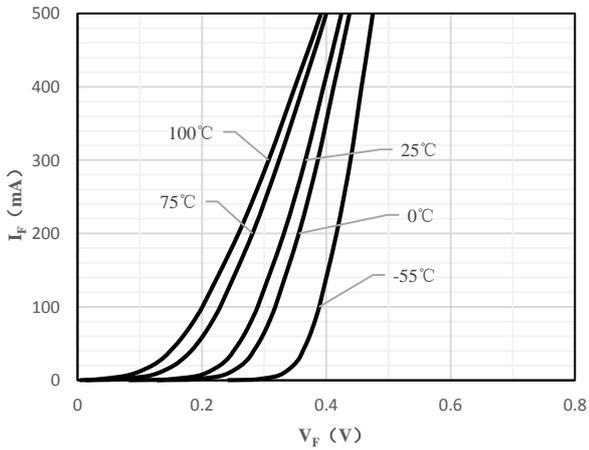


Fig 3 Typical Forward Characteristic

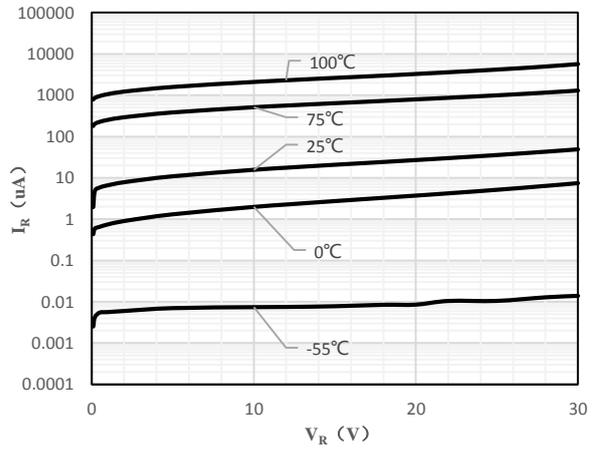


Fig 4 Typical Reverse Characteristic

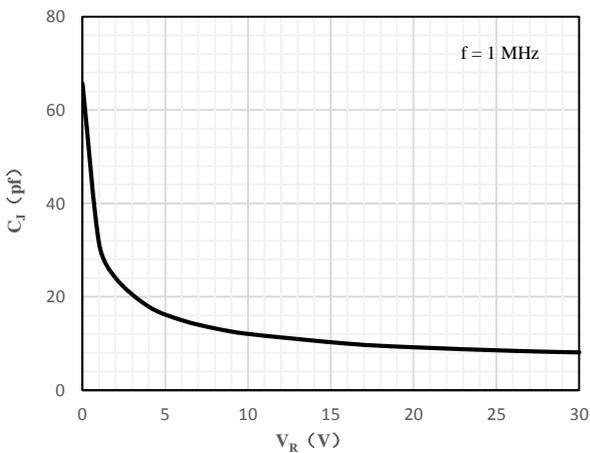
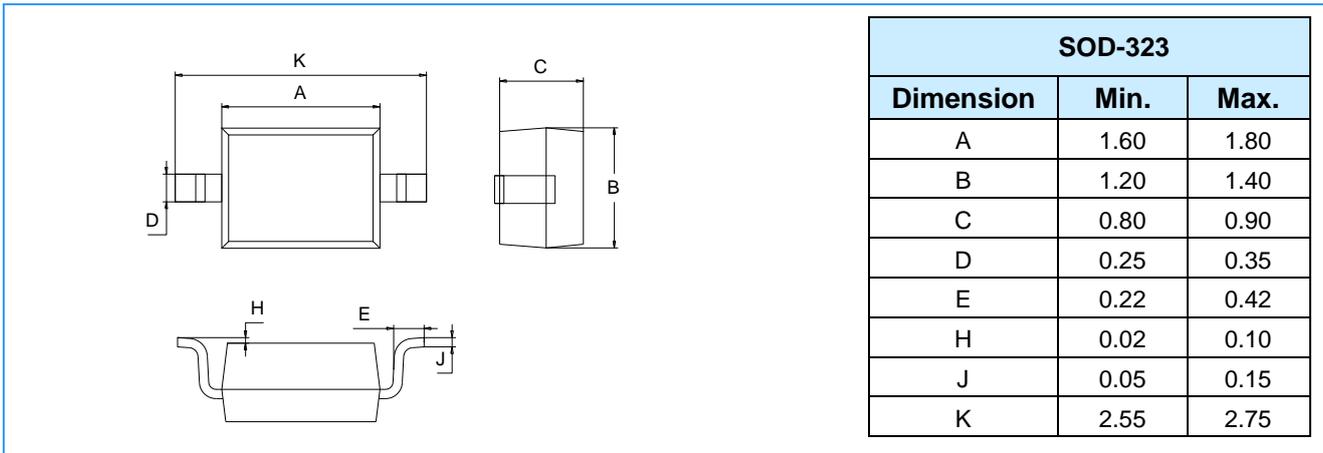
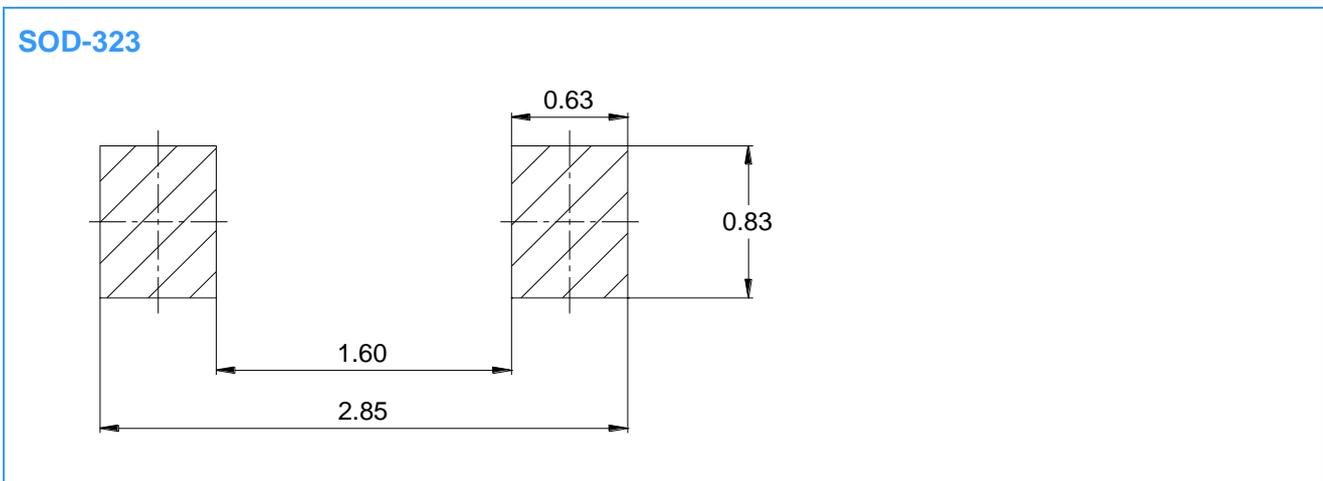


Fig 5 Typical Junction Capacitance

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



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