

Features

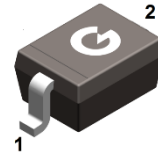
- General rectification
- Low V_F
- Low I_R
- RoHS compliant with Halogen-free

HF

Mechanical Data

- Case: SOD-323
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208

Cathode Anode
1 2



SOD-323

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
RB550V-30	SOD-323	3000 pcs / Tape & Reel	S·

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}	30	V
DC Reverse Voltage	V_R	30	V
RMS Reverse Voltage	V_{RMS}	21	V
Maximum Average Forward Output Current	$I_{F(AV)}$	1	A
Peak Forward Surge Current (8.3ms single half sine-wave)	I_{FSM}	3	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation ($T_A = 25^\circ\text{C}$) *1	P_D	0.54	W
Thermal Resistance Junction-to-Air *1	$R_{\theta JA}$	230	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Case *1	$R_{\theta JC}$	120	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Lead *1	$R_{\theta JL}$	170	$^\circ\text{C/W}$
Operating Junction Temperature	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

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

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 100\mu\text{A}$	30	-	-	V
Forward Voltage	V_F	$I_F = 0.7\text{A}$	-	-	0.52	V
		$I_F = 1\text{A}$	-	-	0.55	V
Maximum Peak Reverse Current	I_R	$V_R = 10\text{V}$	-	-	20	μA

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

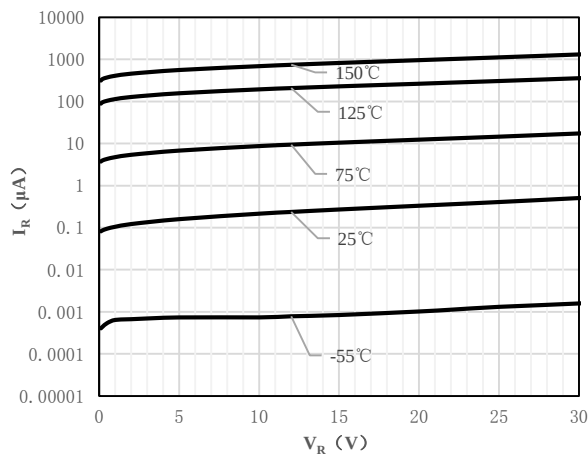


Fig 1 Typical Reverse Characteristic

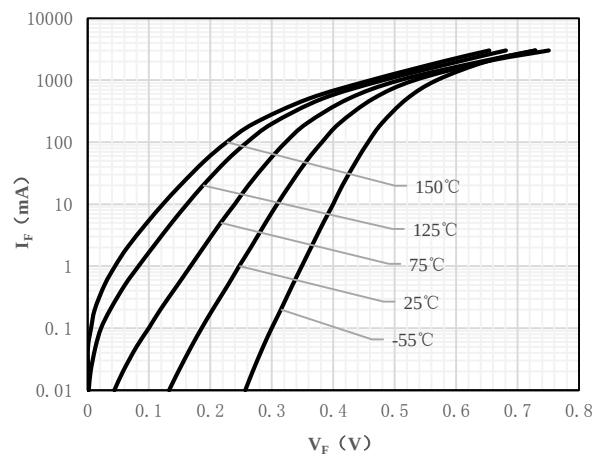


Fig 2 Typical Forward Characteristics

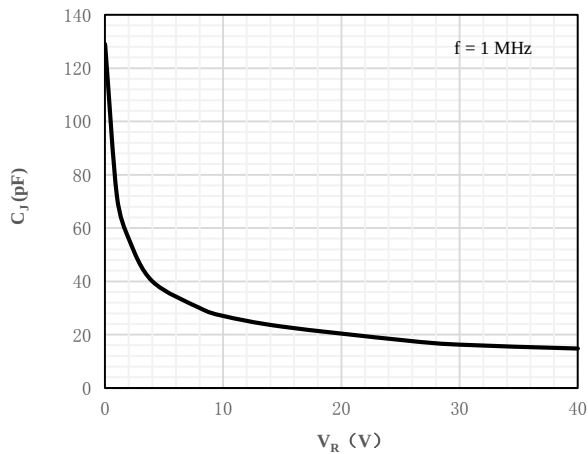


Fig 3 Capacitance vs. Reverse Voltage

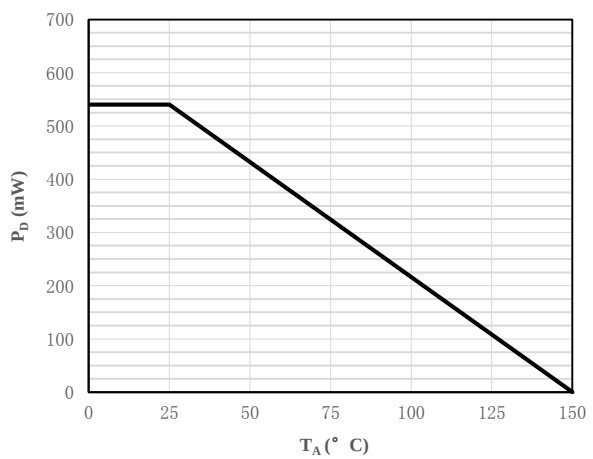
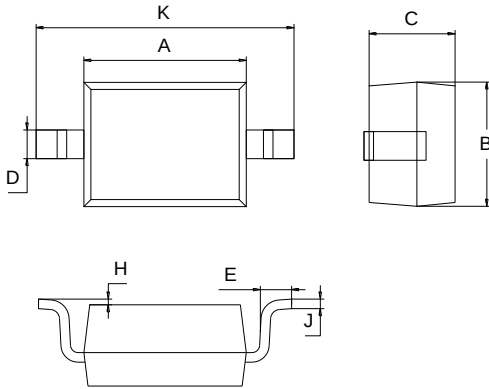


Fig 4 Power Derating Curve

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

