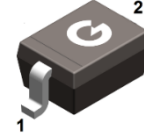


Features

- Low forward voltage drop
- High conductance
- Guard ring construction for transient protection
- RoHS compliant with Halogen-free

HF

Cathode 1  Anode 2



SOD-323

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

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
B0530WS	SOD-323	3000 pcs / Tape & Reel	SE

Maximum Ratings (@ T_A = 25°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 _{R(RMS)}	21	V
Average Rectified Output Current	I _O	0.5	A
Peak Forward Surge Current (8.3ms single half sine-wave)	I _{FSM}	2	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	235	mW
Thermal Resistance Junction-to-Air *1	R _{θJA}	300	°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 Range	T _J	-55 ~ +125	°C
Storage Temperature Range	T _{STG}	-55 ~ +125	°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	$V_{(BR)R}$	$I_R = 130\mu\text{A}$	30	-	-	V
Forward Voltage	V_F	$I_F = 0.1\text{A}$	-	-	0.375	V
		$I_F = 0.5\text{A}$	-	-	0.430	V
Maximum Peak Reverse Current	I_R	$V_R = 15\text{V}$	-	-	20	μA
		$V_R = 30\text{V}$	-	-	130	μA
Capacitance Between Terminals	C_J	$V_R = 0\text{V}$, $f = 1\text{MHz}$	-	-	170	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}$ $I_{rr} = 0.1I_R$, $R_L = 100\Omega$	-	-	4	ns

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

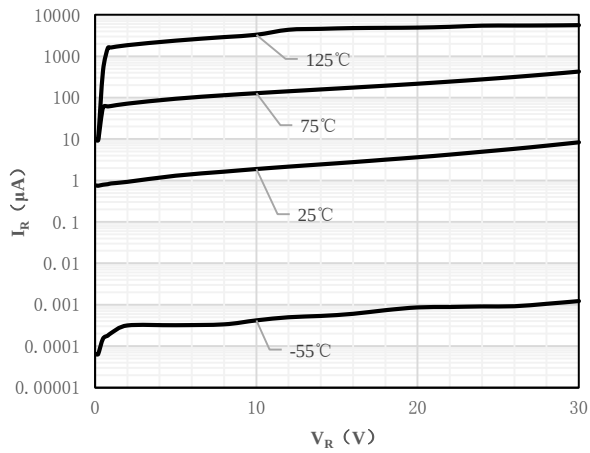


Fig 1 Typical Reverse Characteristic

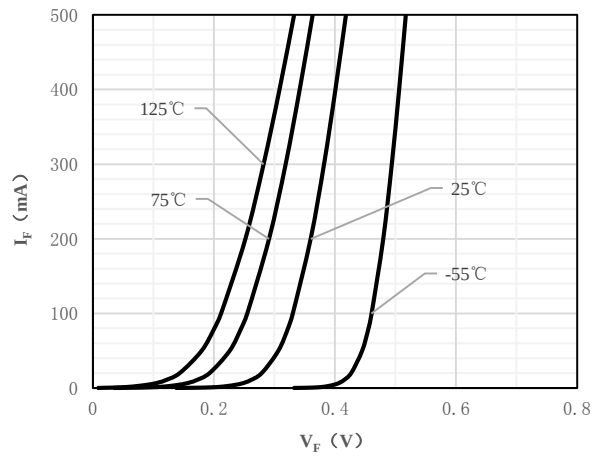


Fig 2 Typical Forward Characteristics

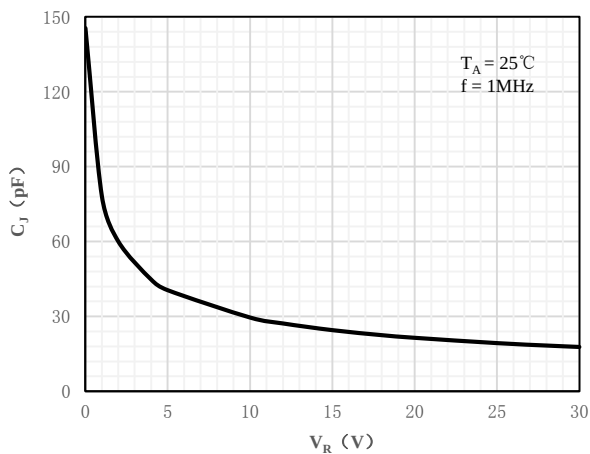


Fig 3 Capacitance Characteristics

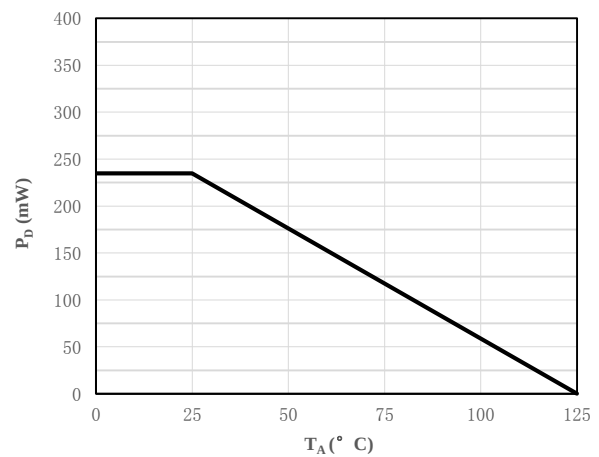
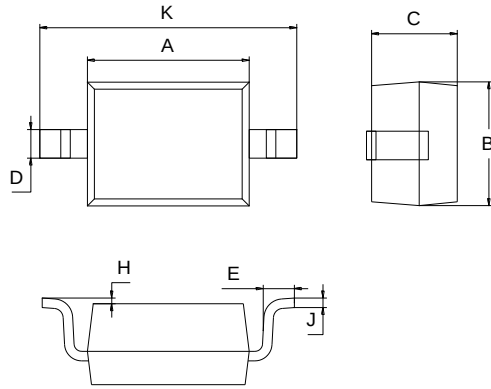


Fig 4 Power Derating Curve

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

Package Outline Dimensions (Unit: mm)

SOD-323

