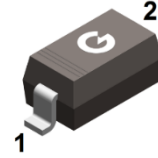


Features

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

HF

Cathode 1 Anode 2



SOD-123

Mechanical Data

- Case: SOD-123
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
B0530W	SOD-123	3000 pcs / Tape & Reel	SE

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 ($T_L = 100^\circ\text{C}$)	$I_{F(AV)}$	0.5	A
Peak Forward Surge Current (8.3ms single half sine-wave)	I_{FSM}	5.5	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation ($T_A = 25^\circ\text{C}$)	P_D	410	mW
Thermal Resistance Junction-to-Air	$R_{\theta JA}$	244	$^\circ\text{C/W}$
Operating Junction Temperature	T_J	-65 ~ +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 ~ +125	$^\circ\text{C}$

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R = 130\mu\text{A}$	30	-	-	V
Forward Voltage	V_F	$I_F = 0.1\text{A}, T_J = 25^\circ\text{C}$	-	-	0.375	V
		$I_F = 0.5\text{A}, T_J = 25^\circ\text{C}$	-	-	0.430	V
Maximum Peak Reverse Current	I_R	$V_R = 15\text{V}, T_J = 25^\circ\text{C}$	-	-	20	μA
		$V_R = 30\text{V}, T_J = 25^\circ\text{C}$	-	-	130	μA
Diode capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$	-	-	170	pF

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

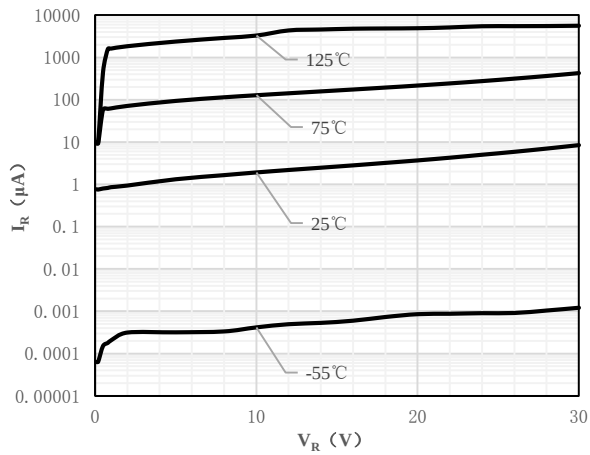


Fig 1 Typical Reverse Characteristic

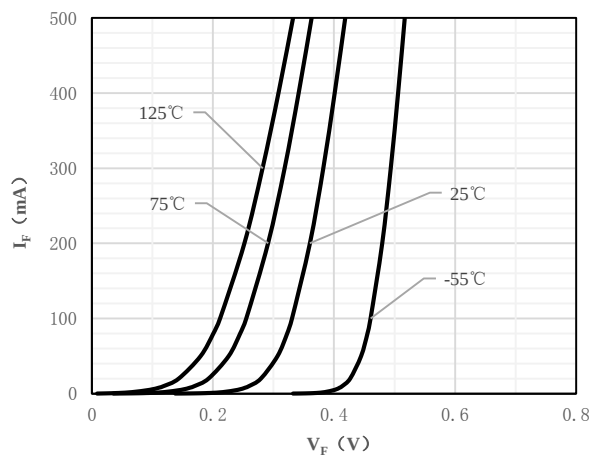


Fig 2 Typical Forward Characteristics

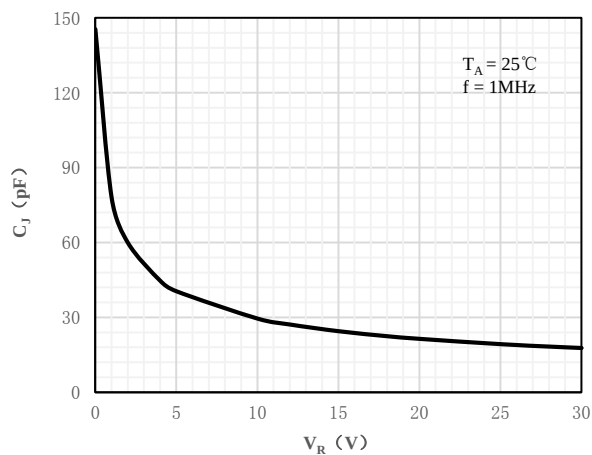


Fig 3 Capacitance vs. Reverse Voltage

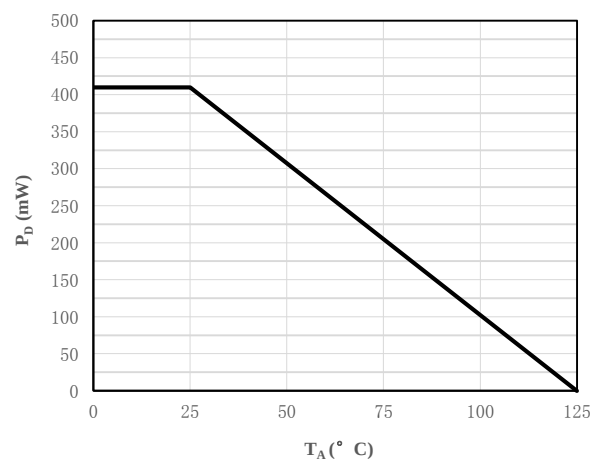
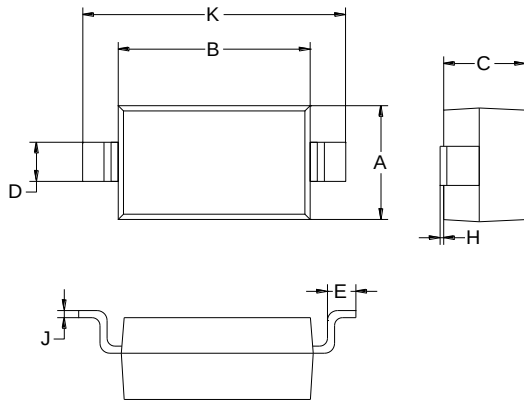


Fig 4 Power Derating Curve

Package Outline Dimensions (Unit: mm)



SOD-123		
Dimension	Min.	Max.
A	1.45	1.75
B	2.55	2.85
C	1.00	1.30
D	0.50	0.60
E	0.25	0.45
H	0.02	0.10
J	0.05	0.15
K	3.55	3.85

Mounting Pad Layout (Unit: mm)

SOD-123

