

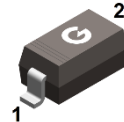
Features

- Very low leakage current
- Surface mount package ideally suited for automatic insertion
- RoHS compliant with Halogen-free
- Qualified to AEC-Q101 Standards

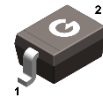
HF

Mechanical Data

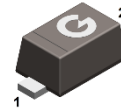
- Case: SOD-123, SOD-323, SOD-523
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



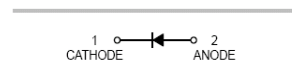
TBAV116W
SOD-123



TBAV116WS
SOD-323



TBAV116WT
SOD-523



Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TBAV116W	SOD-123	3000 pcs / Tape & Reel	50
TBAV116WS	SOD-323	3000 pcs / Tape & Reel	50
TBAV116WT	SOD-523	3000 pcs / Tape & Reel	50

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	130	V
Working Peak Reverse Voltage	V _{RWM}	130	V
DC Blocking Voltage	V _R	130	V
RMS Reverse Voltage	V _{R(RMS)}	90	V
Forward Continuous Current	I _F	215	mA
Repetitive Peak Forward Current	I _{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs	I _{FSM}	4	A
Non-Repetitive Peak Forward Surge Current @ t = 1.0ms		1	A
Non-Repetitive Peak Forward Surge Current @ t = 1.0 s		0.5	A

Thermal Characteristics

Parameter	Symbol	SOD-123	SOD-323	SOD-523	Unit
Power Dissipation	P _D	250	200	150	mW
Thermal Resistance (Junction-to-Ambient)	R _{ΘJA}	500	625	834	°C/W
Operating Junction Temperature	T _J	-55 ~ +150			°C
Storage Temperature Range	T _{STG}	-55 ~ +150			°C

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$	130	-	-	V
Forward Voltage	V_F	$I_F = 1.0\text{mA}, T_J = 25^\circ\text{C}$	-	-	0.90	V
		$I_F = 10\text{mA}, T_J = 25^\circ\text{C}$	-	-	1.00	V
		$I_F = 50\text{mA}, T_J = 25^\circ\text{C}$	-	-	1.10	V
		$I_F = 150\text{mA}, T_J = 25^\circ\text{C}$	-	-	1.25	V
		$I_F = 10\text{mA}, T_J = 125^\circ\text{C}$	-	-	1.00	V
Maximum Peak Reverse Current	I_R	$V_R = 75\text{V}, T_J = 25^\circ\text{C}$	-	-	5	nA
		$V_R = 75\text{V}, T_J = 125^\circ\text{C}$	-	-	80	nA
Total Capacitance	C_J	$V_R = 0, f = 1.0\text{MHz}$	-	-	5	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA},$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	-	-	3	μs

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

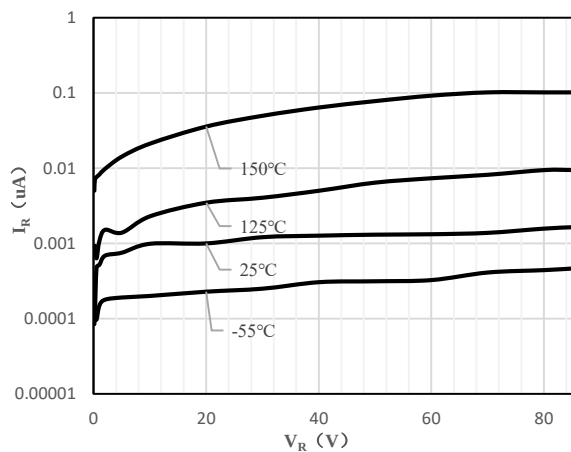


Fig 1 Typical Reverse Characteristic

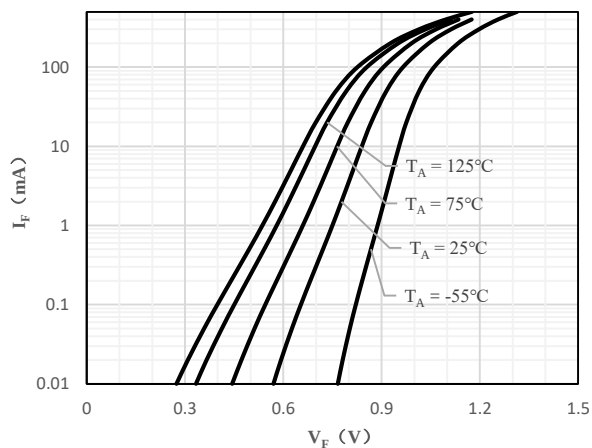


Fig 2 Typical Forward Characteristics

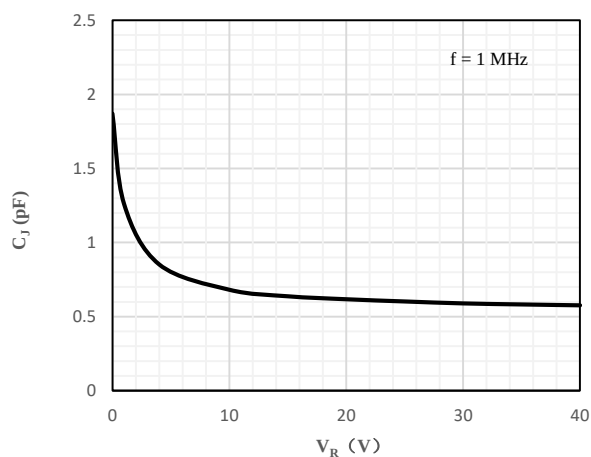


Fig 3 Capacitance vs. Reverse Voltage

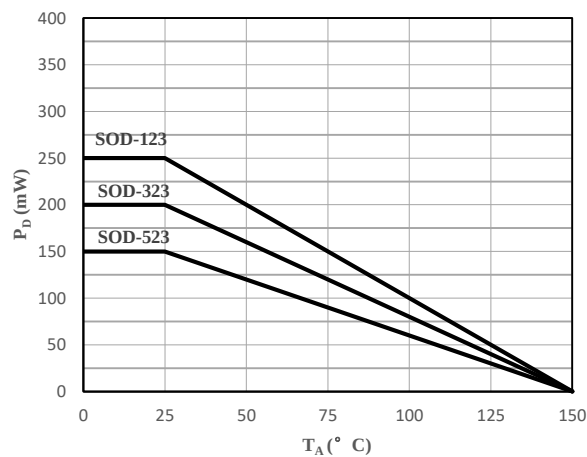
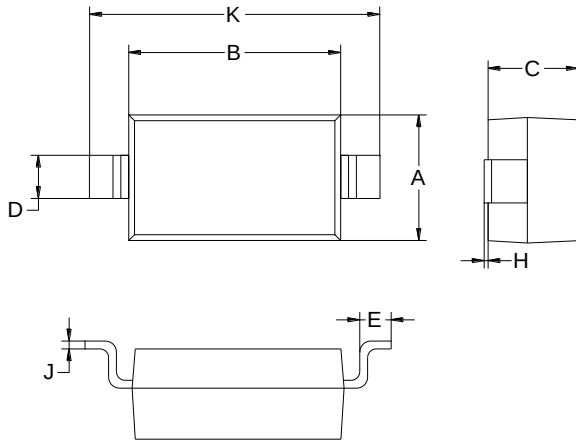
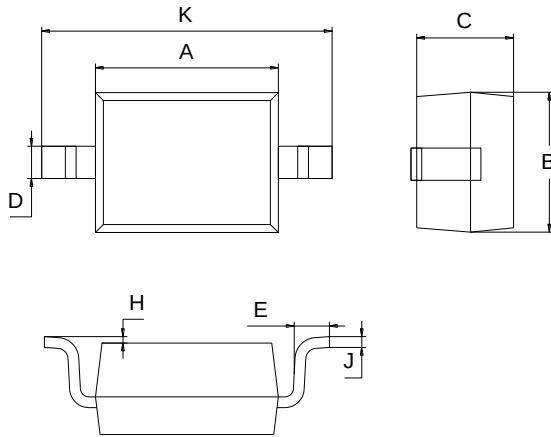


Fig 4 Power Derating Curve

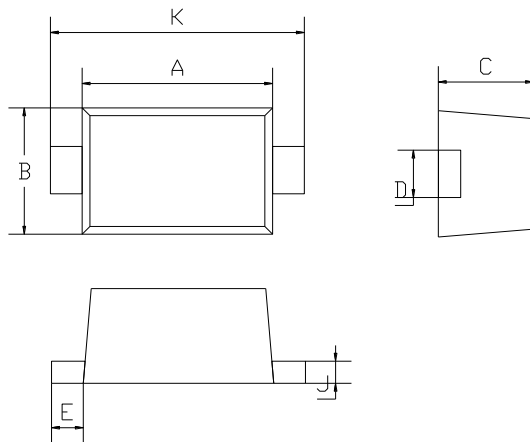
Package Outline Dimensions (Unit: mm)



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



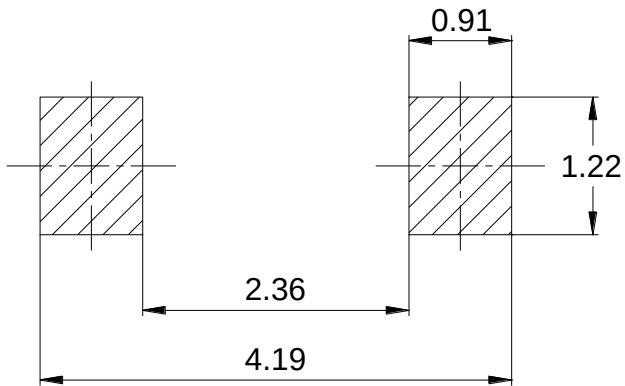
SOD-323		
Dimension	Min.	Max.
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75



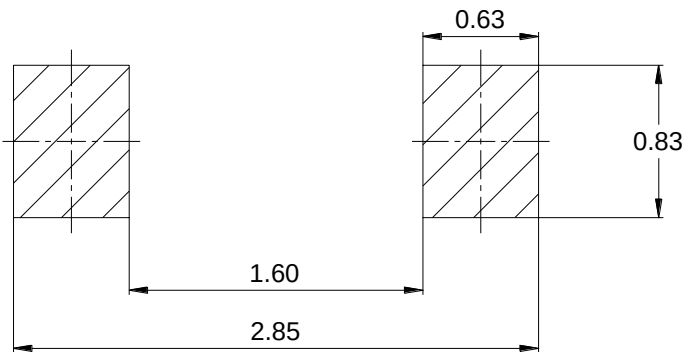
SOD-523		
Dimension	Min.	Max.
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
E	0.15	0.25
J	0.05	0.15
K	1.50	1.70

Mounting Pad Layout (Unit: mm)

SOD-123



SOD-323



SOD-523

