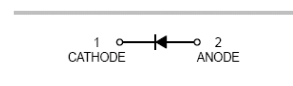


Features

- High switching speed
- For general purpose switching applications

HF

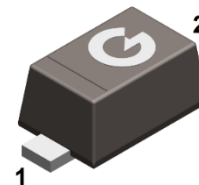


Typical Applications

- High-speed switching in surface mounted circuits

Mechanical Data

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



SOD-523

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BAV19X	SOD-523	3000 pcs / Tape & Reel	A8

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

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V _{RM}	120	V
Peak Repetitive Peak Reverse Voltage	V _{RRM}	100	V
Working Peak Reverse Voltage	V _{RWM}	100	V
DC Blocking Voltage	V _R	100	V
RMS Reverse Voltage	V _{R(RMS)}	71	V
Continuous Forward Current	I _F	200	mA
Peak Forward Surge Current, 1μs Single Half-sine-wave	I _{FSM}	2.5	A
Peak Forward Surge Current, 1s Single Half-sine-wave	I _{FSM}	0.5	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	200	mW
Thermal Resistance Junction-to-Air *1	R _{θJA}	280	°C/W
Thermal Resistance Junction-to-Case *1	R _{θJC}	197	°C/W
Thermal Resistance Junction-to-Lead *1	R _{θJL}	207	°C/W
Operating Junction Temperature Range	T _J	-65 ~ +150	°C
Storage Temperature Range	T _{STG}	-65 ~ +150	°C

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$	120	-	-	V
Forward Voltage	V_F	$I_F = 100\text{mA}$	-	-	1.00	V
		$I_F = 200\text{mA}$	-	-	1.25	
Maximum Peak Reverse Current	I_R	$V_R = 100\text{V}$	-	-	100	nA
Total Capacitance	C_J	$V_R = 0\text{V}$, $f = 1.0\text{MHz}$	-	-	5	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 30\text{mA}$, $R_L = 100\Omega$ $I_{rr} = 0.1 \times I_R$	-	-	50	ns

Note 1: The data tested by surface mounted on a 25.4mm * 25.4mm * 1mm FR4-epoxy P.C.B

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

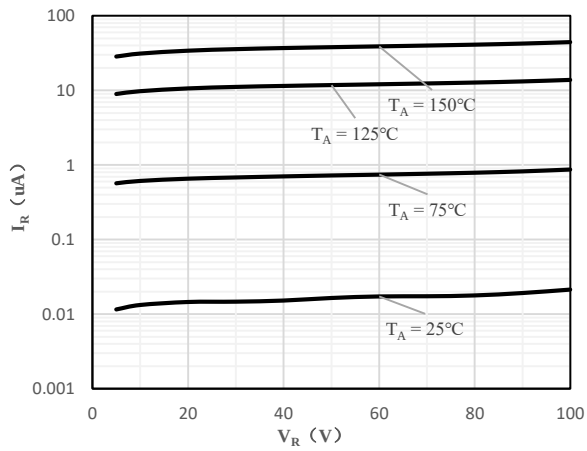


Fig 1 Typical Reverse Characteristic

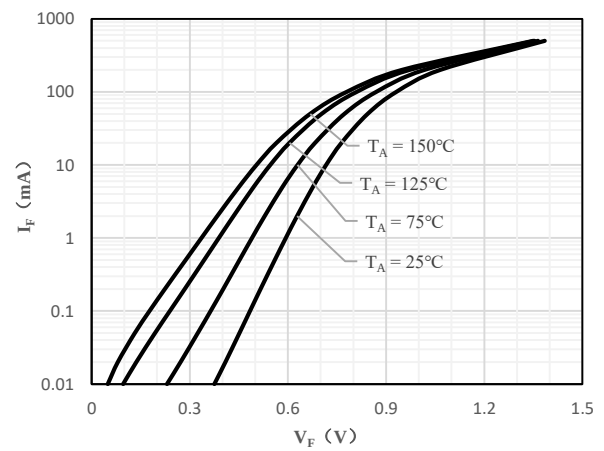
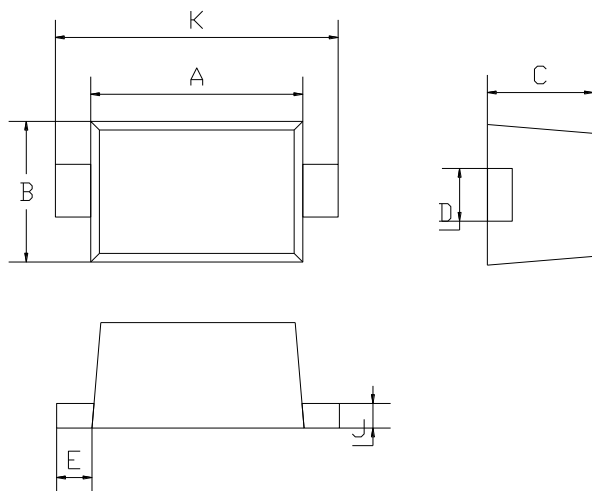


Fig 2 Typical Forward Characteristics

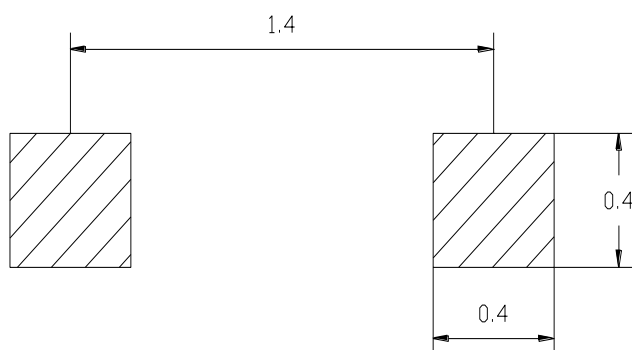
Package Outline Dimensions (Unit: mm)



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-523



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