

Features

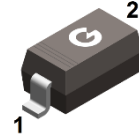
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications
- Halogen free
- Qualified to AEC-Q101 standards for high reliability

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Mechanical Data

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



SOD-123

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TMMSD103	SOD-123	3000 pcs / Tape & Reel	JS

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

Parameter	Symbol	Value	Unit
Continuous Reverse Voltage	V _R	250	V
Forward Continuous Current	I _F	200	mA
Peak Forward Surge Current	I _{FSM}	625	mA

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	400	mW
Thermal Resistance Junction-to-Air *1	R _{θJA}	400	°C/W
Thermal Resistance Junction-to-Case *1	R _{θJC}	230	°C/W
Thermal Resistance Junction-to-Lead *1	R _{θJL}	260	°C/W
Operating Junction Temperature Range	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

Note 1: The data tested by surface mounted on a 15mm * 15mm * 1mm FR4-epoxy P.C.B

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$	250	-	-	V
Forward Voltage	V_F	$I_F = 100\text{mA}$	-	-	1	V
		$I_F = 200\text{mA}$	-	-	1.25	V
Maximum Peak Reverse Current	I_R	$V_R = 200\text{V}, T_J = 25^\circ\text{C}$	-	-	1	μA
		$V_R = 200\text{V}, T_J = 150^\circ\text{C}$	-	-	100	μA
Total Capacitance	C_J	$V_R = 0\text{V}, f = 1.0\text{MHz}$	-	-	5	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 30\text{mA}$ $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	-	-	50	ns

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

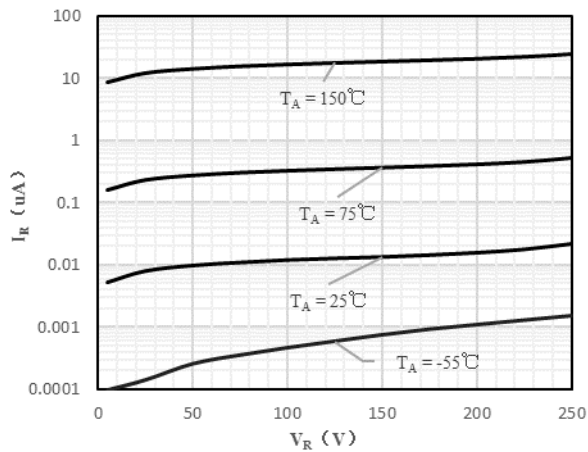


Fig 1 Typical Reverse Characteristic

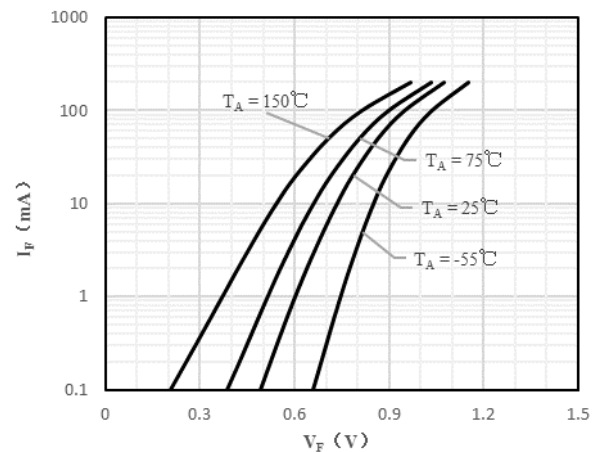


Fig 2 Typical Forward Characteristics

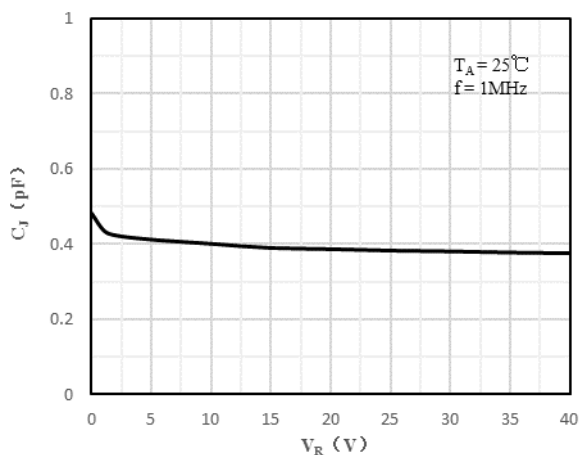
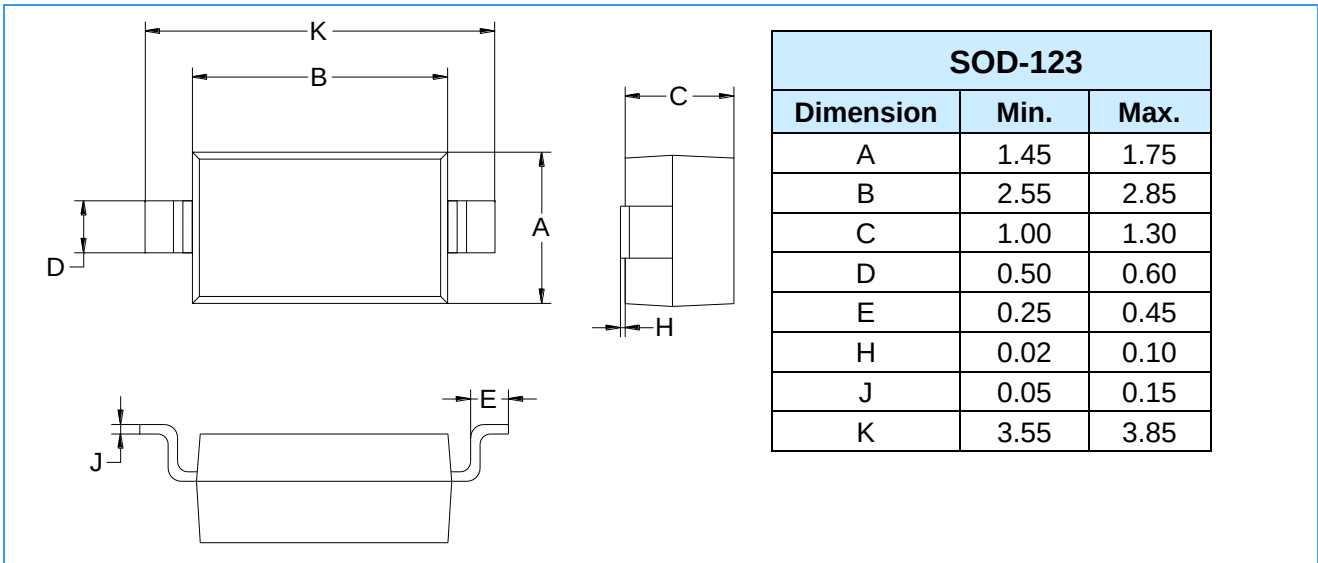


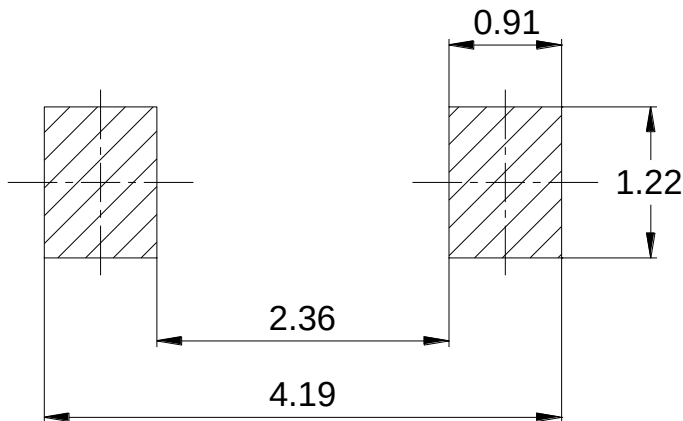
Fig 3 Capacitance vs. Reverse Voltage

Package Outline Dimensions (Unit: mm)



Package Outline Dimensions (Unit: mm)

SOD-123



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