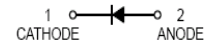


Features

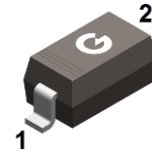
- Fast switching speed
- High conductance

HF



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
MMSD4148	SOD-123	3000 pcs / Tape & Reel	5I

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

Parameter	Symbol	Value	Unit
Maximum Repetitive Reverse Voltage	V _{RRM}	100	V
Average Rectified Forward Current	I _{F(AV)}	215	mA
Non-repetitive Peak Forward Surge Current (t = 1s)	I _{FSM}	1	A
Non-repetitive Peak Forward Surge Current (t = 1μs)	I _{FSM}	2	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	400	mW
Thermal Resistance Junction-to-Air *1	R _{θJA}	323	°C/W
Thermal Resistance Junction-to-Case *1	R _{θJC}	209	°C/W
Thermal Resistance Junction-to-Lead *1	R _{θJL}	232	°C/W
Operating Temperature	T _J	-55 ~ +150	°C
Storage Temperature Range	T _{STG}	-55 ~ +150	°C

Note 1: The data tested by surface mounted on a 25.4mm * 25.4mm * 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	$V_{(BR)R}$	$I_R = 100\mu\text{A}$	100	-	-	V
Forward Voltage	V_F	$I_F = 10\text{mA}$	-	-	1	V
Maximum Peak Reverse Current	I_R	$V_R = 20\text{V}$	-	-	25	nA
		$V_R = 75\text{V}$	-	-	5	μA
		$V_R = 20\text{V}, T_J = 150^\circ\text{C}$	-	-	50	μA
Diode Capacitance	C_D	$V_R = 0\text{V}, f = 1\text{MHz}$	-	-	4	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA}$	-	-	4	ns

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

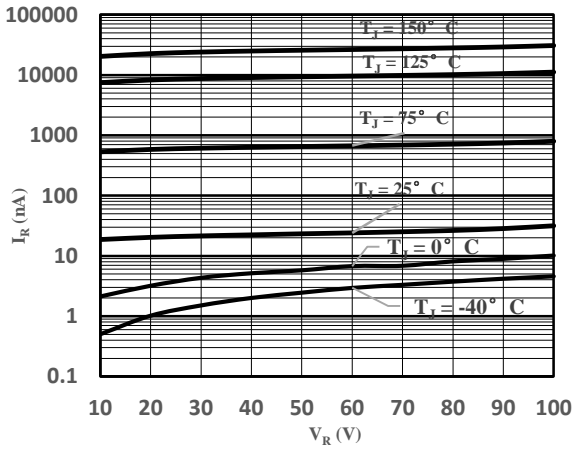


Fig 1 Typical Reverse Characteristic

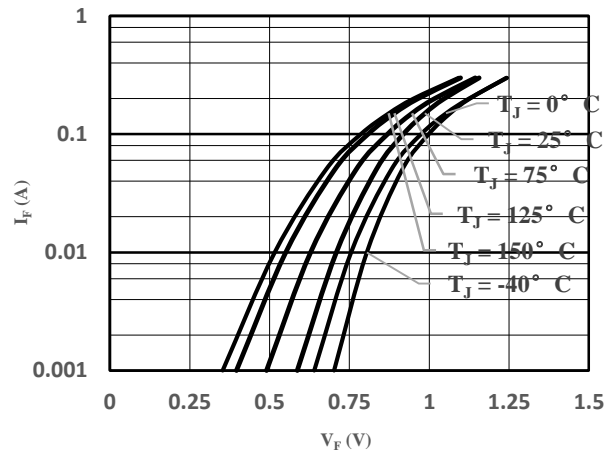


Fig 2 Typical Forward Characteristics

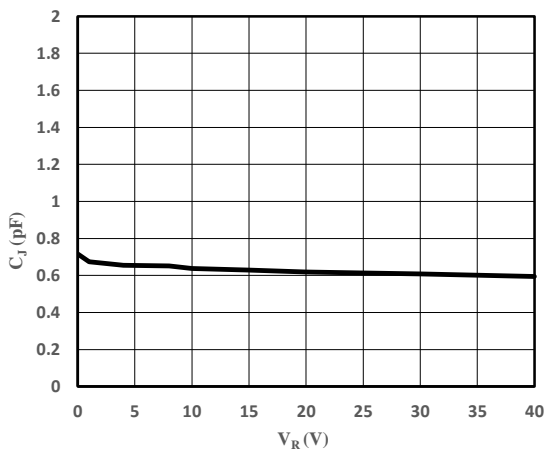


Fig 3 Capacitance vs. Reverse Voltage

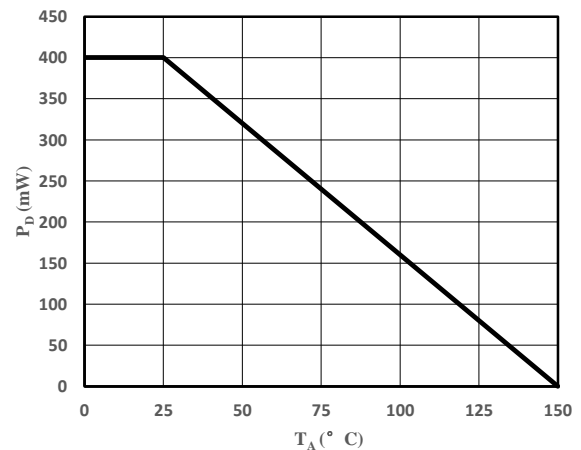
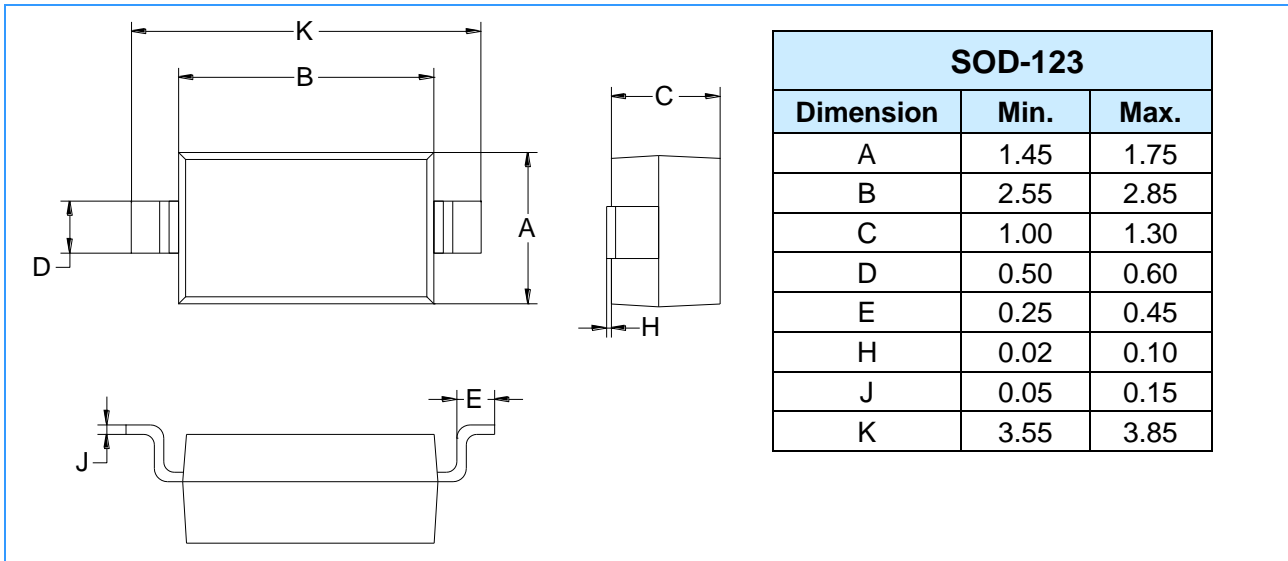
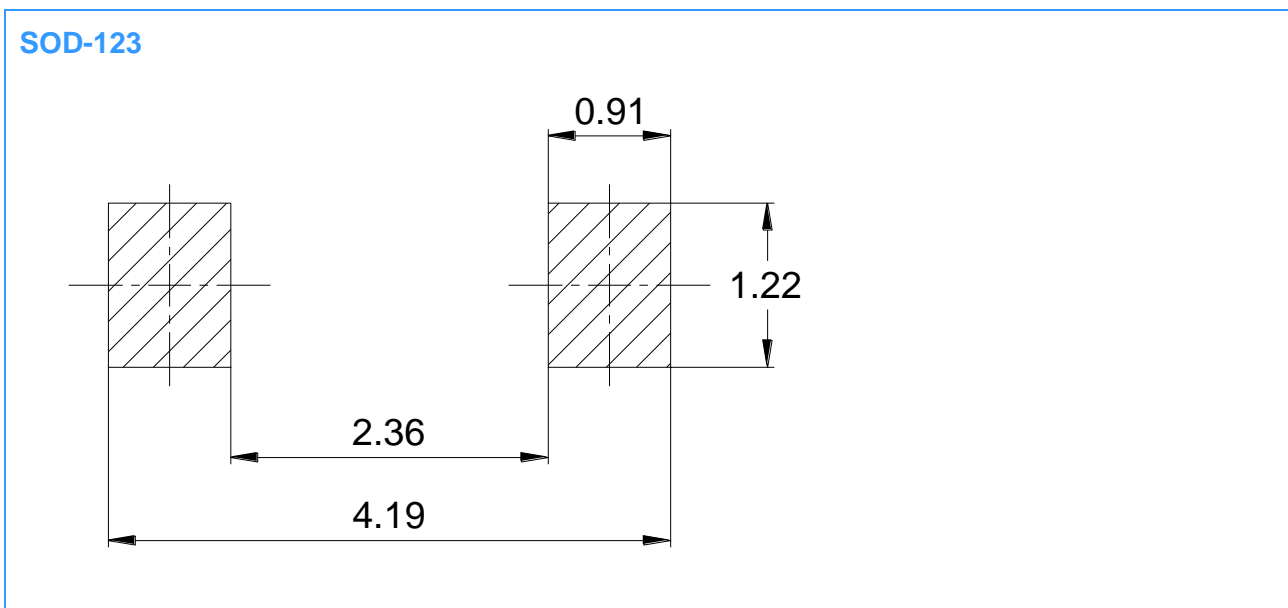


Fig 4 Power Derating Curve

Package Outline Dimensions (Unit: mm)



Package Outline Dimensions (Unit: mm)



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