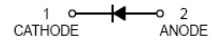


Features

- High speed and high reliability

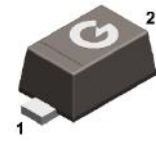
HF



1 CATHODE 2 ANODE

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
1SS400	SOD-523	3000 pcs / Tape & Reel	A

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

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V _{RM}	90	V
DC Blocking Voltage	V _R	80	V
Average Rectified Output Current	I _F	100	mA
Forward Current	I _{FM}	225	mA
Peak Forward Surge Current, 1s Single Half-sine-wave	I _{FSM}	0.5	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	150	mW
Thermal Resistance Junction-to-Air *1	R _{θJA}	400	°C/W
Thermal Resistance Junction-to-Case *1	R _{θJC}	315	°C/W
Thermal Resistance Junction-to-Lead *1	R _{θJL}	330	°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 1 inch² FR-4 board with 2OZ copper

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V_{BR}	$I_R = 100\mu\text{A}$	80	-	-	V
Forward Voltage	V_F	$I_F = 100\text{mA}$	-	-	1.2	V
Maximum Peak Reverse Current	I_R	$V_R = 80\text{V}$	-	-	0.1	μA
Total Capacitance	C_J	$V_R = 0.5\text{V}, f = 1.0\text{MHz}$	-	-	3	pF
Reverse Recovery Time	t_{rr}	$I_F = 10\text{mA}, V_R = 6\text{V}$ $R_L = 100\Omega$	-	-	4	ns

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

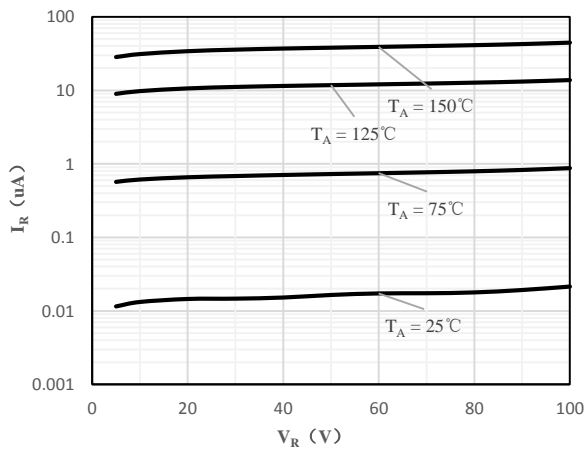


Fig 1 Typical Reverse Characteristic

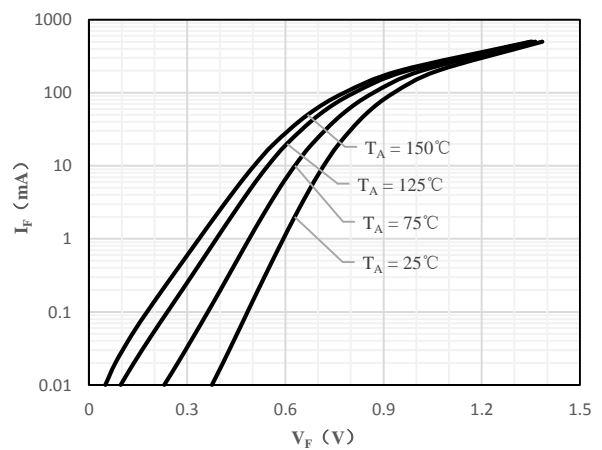


Fig 2 Typical Forward Characteristics

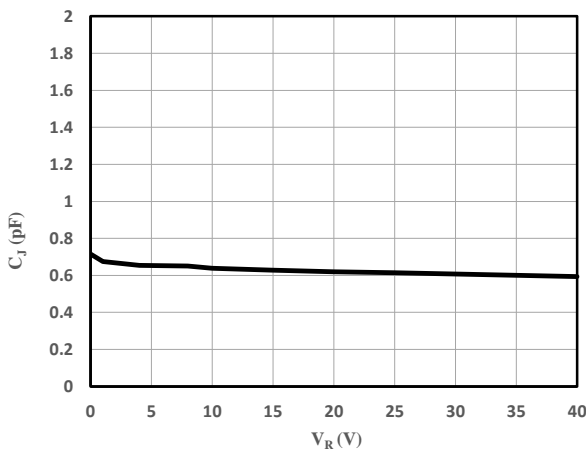


Fig 3 Capacitance vs. Reverse Voltage

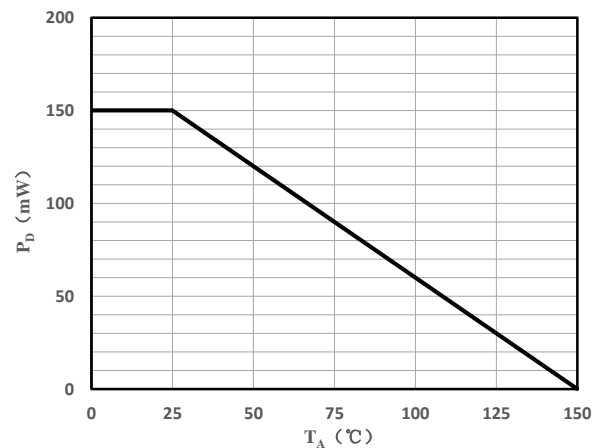
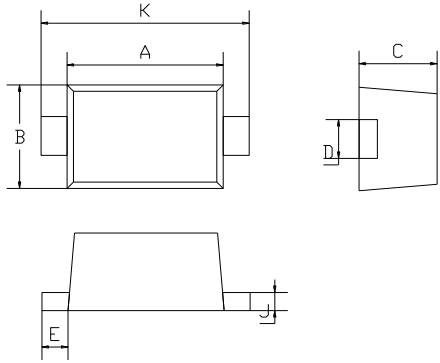


Fig 4 Power Derating Curve

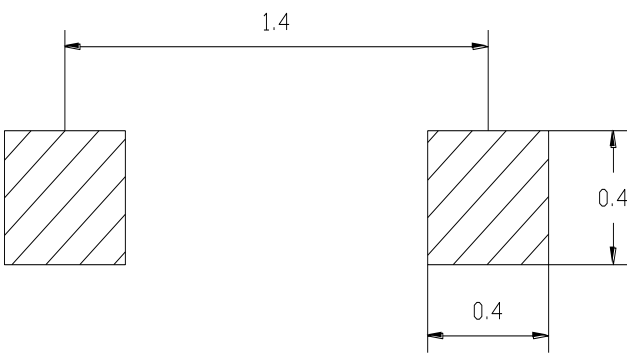
Package Outline Dimensions (Unit: mm)



SOD-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

Package Outline Dimensions (Unit: mm)

SOD-523



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