银河微电 Galaxy Microelectronics

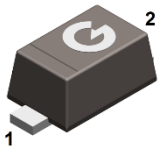
Small Signal Schottky Barrier Diode

1SS388

Features

- Low reverse current
- Low forward voltage
- RoHS compliant with Halogen-free

HF



SOD-523

Mechanical Data

- Case: SOD-523
- Molding compound: UL flammability classification rating 94-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
1SS388	SOD-523	3000 pcs / Tape & Reel	S3

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	45	V
DC Reverse Voltage	V_R	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Maximum Average Forward Output Current	$I_{F(AV)}$	100	mA
Maximum Peak Forward Current	I_{FM}	300	mA
Forward Surge Current @ t_p = 10ms	I_{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	150	mW
Thermal Resistance (Junction-to-Ambient) *1	$R_{\Theta JA}$	250	°C/W
Thermal Resistance (Junction-to-Case) *1	$R_{\Theta JC}$	180	°C/W
Thermal Resistance (Junction-to-Lead) *1	$R_{\Theta JL}$	190	°C/W
Operating junction Temperature	T_J	-40 ~ +125	°C
Storage Temperature Range	T_{STG}	-40 ~ +150	°C

Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)}$	I_R = 100μA	40	-	-	V
Forward Voltage *2	V_F	I_F = 1mA	-	0.28	-	V
		I_F = 10mA	-	0.36	-	V
		I_F = 50mA	-	0.40	0.60	V
Maximum Peak Reverse Current *3	I_R	V_R = 10V	-	-	5	μA
Capacitance Between Terminals	C_T	V_R = 0V, f = 1MHz	-	22	25	pF

Notes:

1. The data tested by surface mounted on a 1 inch^2 FR-4 board with 2OZ copper
2. Pulse width ≤380μs, Duty cycle < 2%
3. pulse test, tp≤5ms

Ratings and Characteristic Curves (@ T_A = 25°C unless otherwise specified)

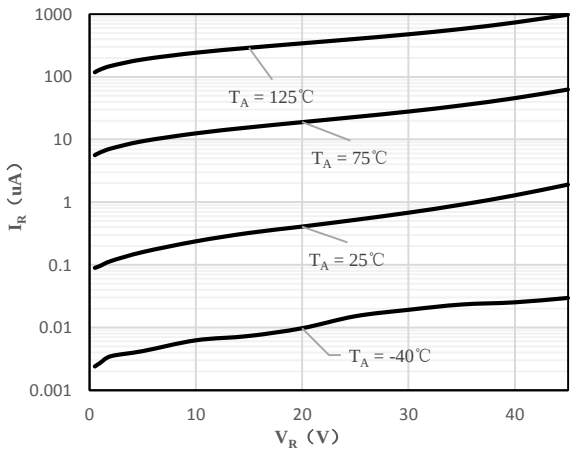


Fig 1 Typical Reverse Characteristic

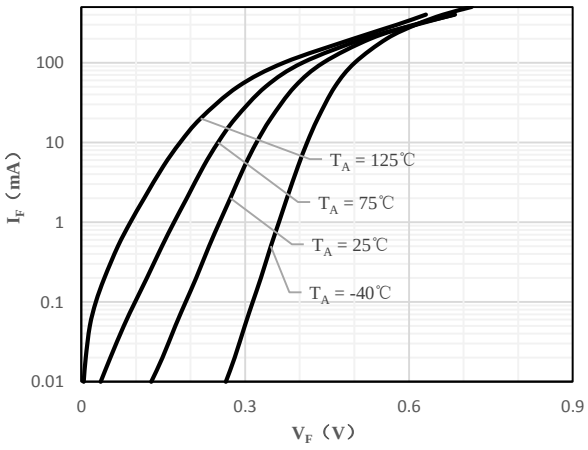


Fig 2 Typical Forward Characteristics

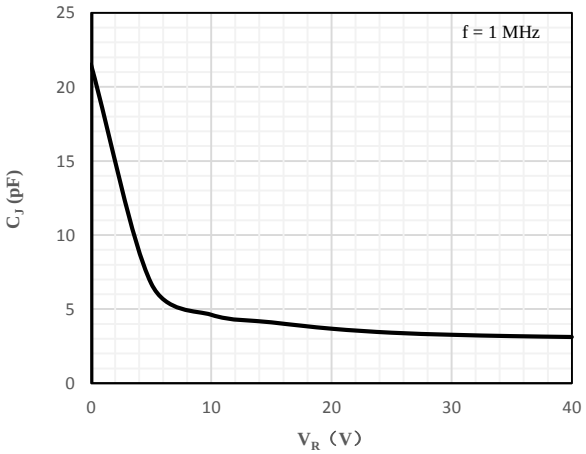


Fig 3 Capacitance vs. Reverse Voltage

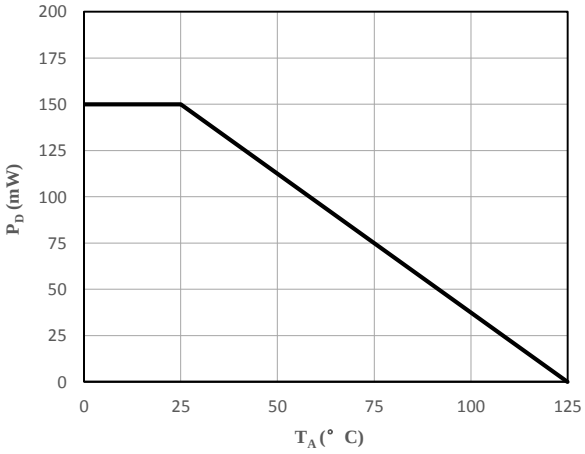
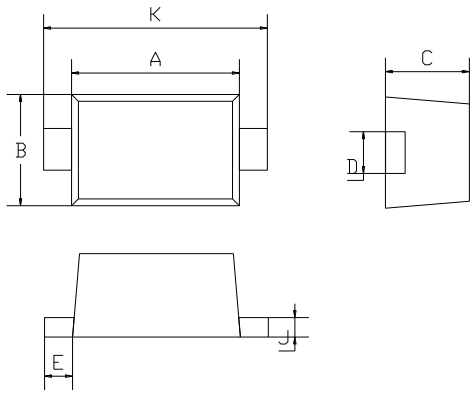


Fig 4 Power Derating Curve

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)

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