

Features

- Low forward voltage
- Small package
- RoHS compliant with Halogen-free

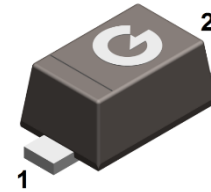
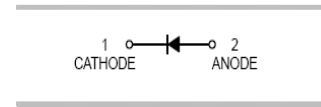
HF

Typical Applications

- High speed switching application

Mechanical Data

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



SOD-523

Ordering Information

Part Number	Package	Shipping	Marking Code
1SS389	SOD-523	3000 pcs / Tape & Reel	S4

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

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V _{RM}	15	V
DC Reverse Voltage	V _R	10	V
Maximum(Peak) Forward Current	I _{FM}	200	mA
Continuous Forward Current	I _F	100	mA
Surge Current	I _{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Total Power Dissipation	P _{tot}	200	mW
Typical Thermal Resistance per leg	R _{θJA} *	500	°C /W
Junction Temperature	T _j	125	°C
Storage Temperature Range	T _{stg}	-55 to +125	°C
Operating Temperature Range	T _{opr}	-40 to +100	°C

* Part mounted on FR-4 board with recommended pad layout

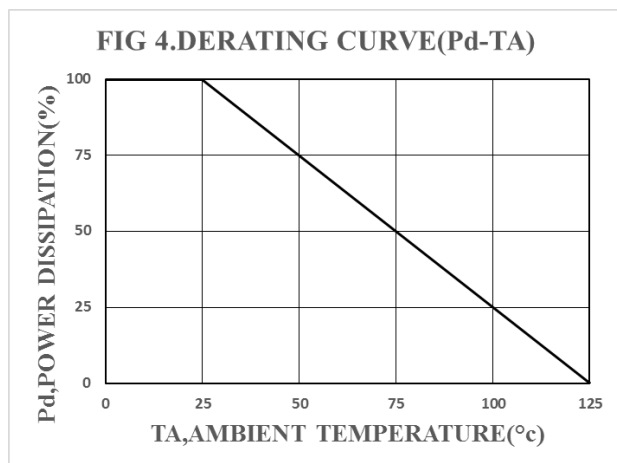
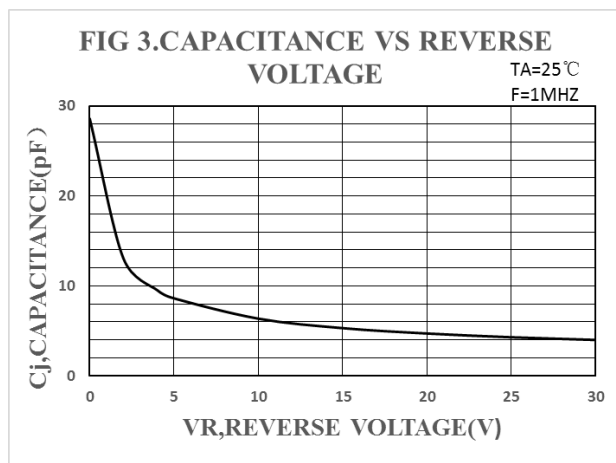
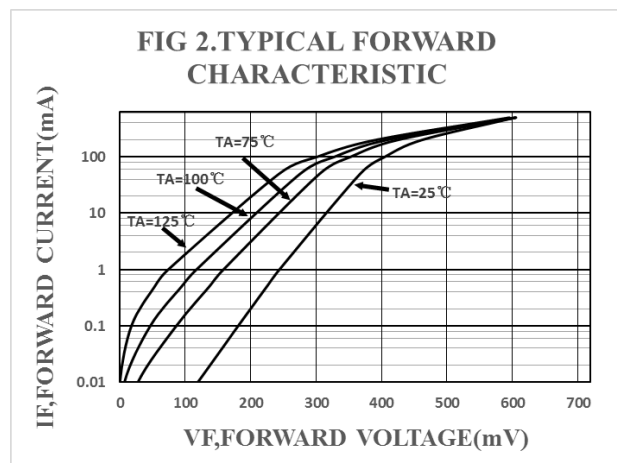
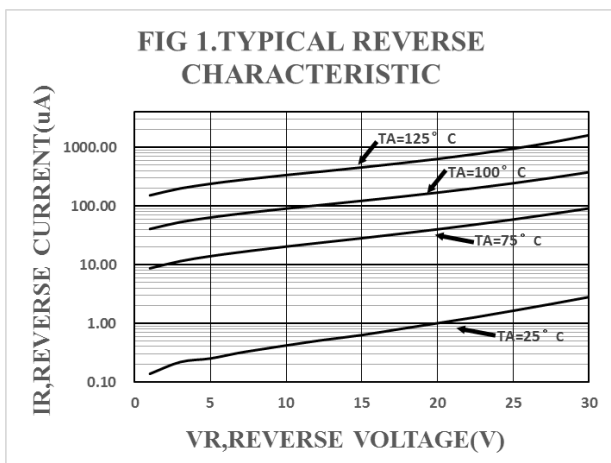
Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=50\mu\text{A}$	10			V
Forward Voltage	V_F	$I_F=1\text{mA}$		0.18		V
		$I_F=5\text{mA}$		0.23	0.30	V
		$I_F=100\text{mA}$		0.35	0.50	V
Reverse Current	I_R	$V_R=10\text{V}$			20	μA
Diode Capacitance	C_d	$V_R=0, f=1\text{MHz}$		20	40	pF

*Pulse width $\leq 380\text{ }\mu\text{s}$, Duty cycle $< 2\%$

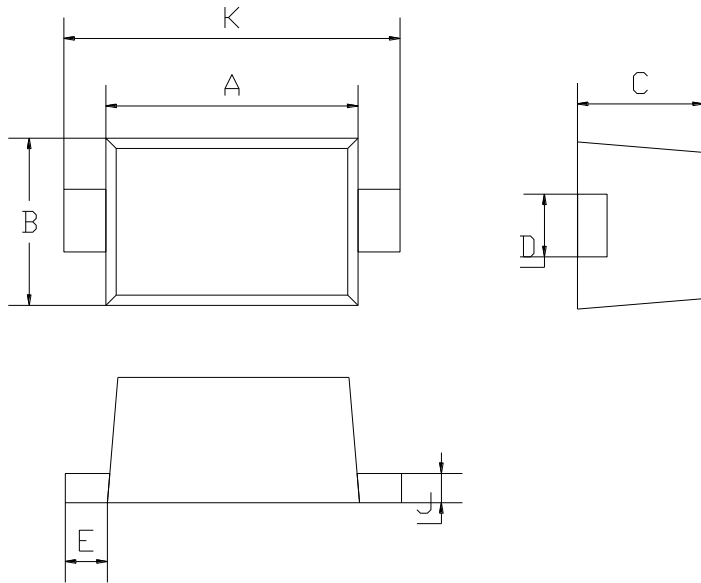
**pulse test , $t_p \leq 5\text{ms}$

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



Package Outline Dimensions (unit: mm)

SOD-523



SOD-523		
Dim	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

