Features

- Fast switching speed
- High conductance

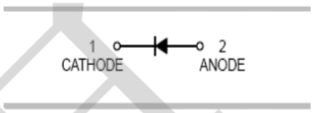
Applications

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

Ordering Information

Shipping Qty:3000/7inch Tape& Reel

SOD523



Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	300	V
DC Blocking Voltage	V_R	300	V
Continuous Forward Current ($T_S \leq 90°C$) *1	I_F	250	mA
Peak Forward Surge Current, 1ms square wave	I_{FSM}	4.5	A
Repetitive Forward Current, 1ms	I_{FRM}	1	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation ($T_S \leq 90°C$) *1	P_D	500	mW
Thermal Resistance Junction-to-Air *2	$R_{\theta JA}$	400	°C/W
Thermal Resistance Junction-to-Case *2	$R_{\theta JC}$	285	°C/W
Thermal Resistance Junction-to-Lead *2	$R_{\theta JL}$	315	°C/W
Operating Junction Temperature Range	T_J	-65 ~ +150	°C
Storage Temperature Range	T_{STG}	-65 ~ +150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R = 100μA	300	-	-	V
Forward Voltage	V_F	I_F = 100mA	-	-	1.10	V
Maximum Peak Reverse Current	I_R	V_R = 250V	-	-	0.15	μA
		V_R = 250V, T_J = 150°C	-	-	100	μA
Total Capacitance	C_J	V_R = 0V, f = 1.0MHz	-	-	5	pF
Reverse Recovery Time	t_{rr}	I_F = I_R = 30mA I_{rr} = 0.1×I_R, R_L = 100Ω	-	-	50	ns

Typical Electrical Characteristic Curves

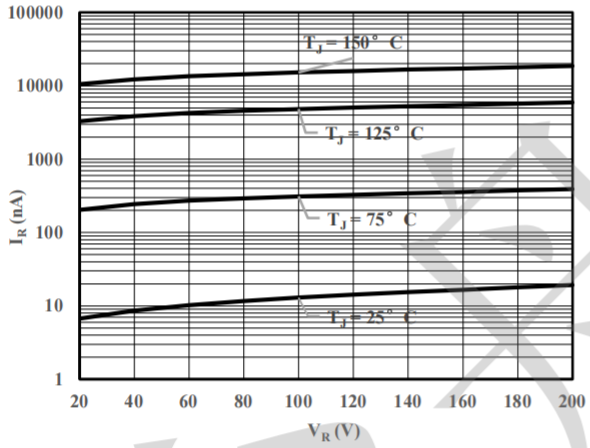


Fig 1 Typical Reverse Characteristic

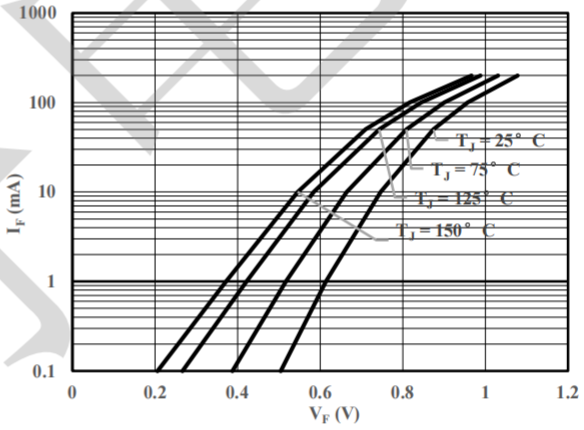
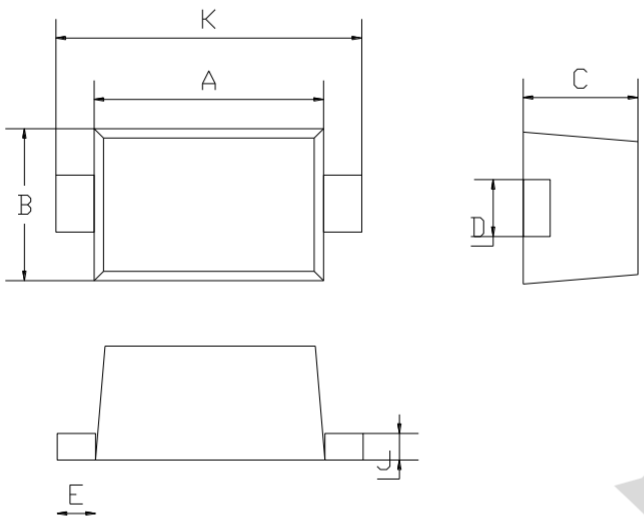


Fig 2 Typical Forward Characteristics

Outline Drawing - SOD-523 (unit: mm)



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-SOD523 (unit: mm)