

## Features

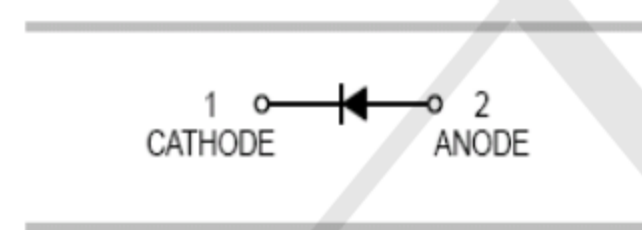
- Fast switching speed
- High conductance

## 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



## Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	300	V
DC Blocking Voltage	V <sub>R</sub>	300	V
Continuous Forward Current (T <sub>S</sub> ≤ 90°C) *1	I <sub>F</sub>	250	mA
Peak Forward Surge Current, 1ms square wave	I <sub>FSM</sub>	4.5	A
Repetitive Forward Current, 1ms	I <sub>FRM</sub>	1	A

## Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation (T <sub>S</sub> ≤ 90°C) *1	P <sub>D</sub>	500	mW
Thermal Resistance Junction-to-Air *2	R <sub>θJA</sub>	400	°C/W
Thermal Resistance Junction-to-Case *2	R <sub>θJC</sub>	285	°C/W
Thermal Resistance Junction-to-Lead *2	R <sub>θJL</sub>	315	°C/W
Operating Junction Temperature Range	T <sub>J</sub>	-65 ~ +150	°C
Storage Temperature Range	T <sub>STG</sub>	-65 ~ +150	°C

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

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

**Typical Electrical Characteristic Curves**

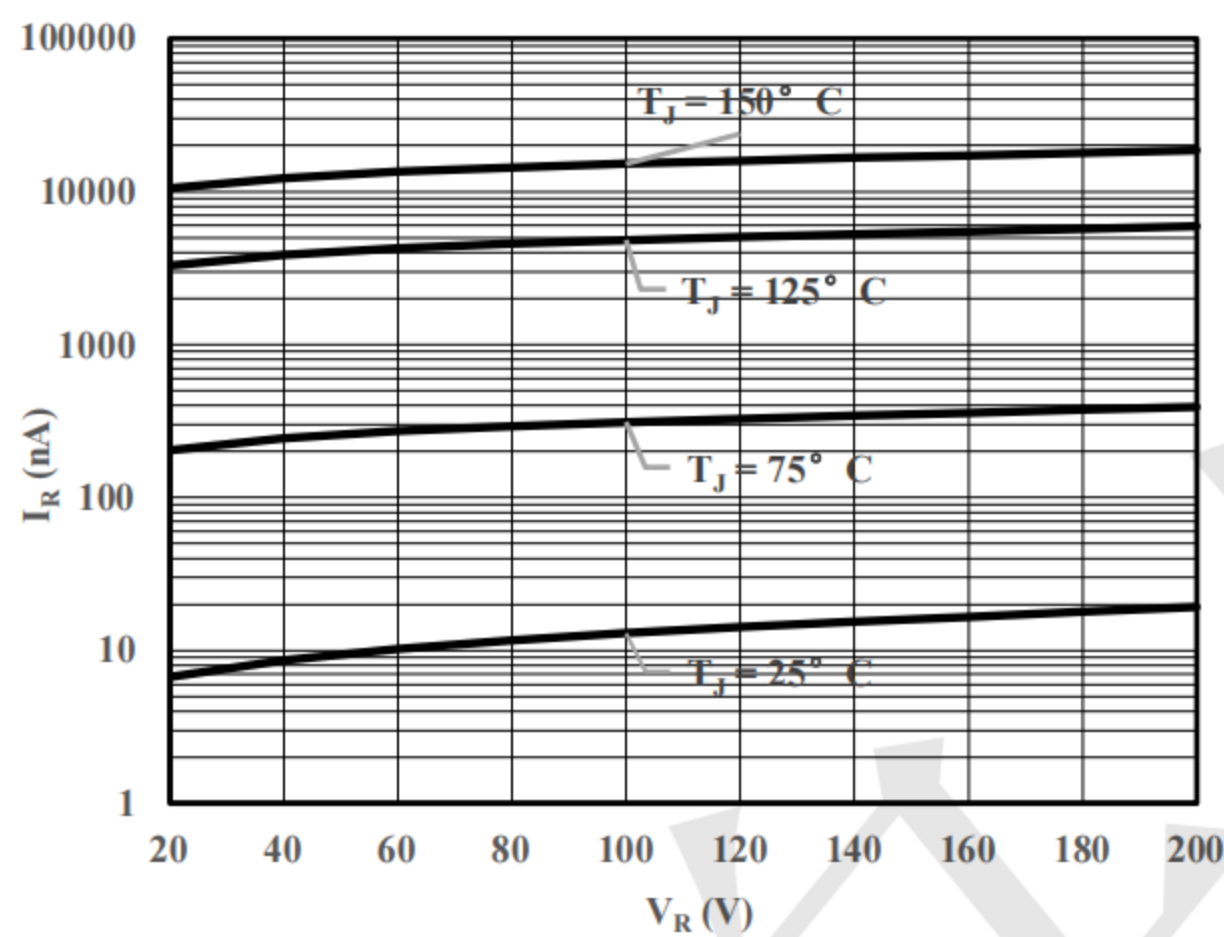


Fig 1 Typical Reverse Characteristic

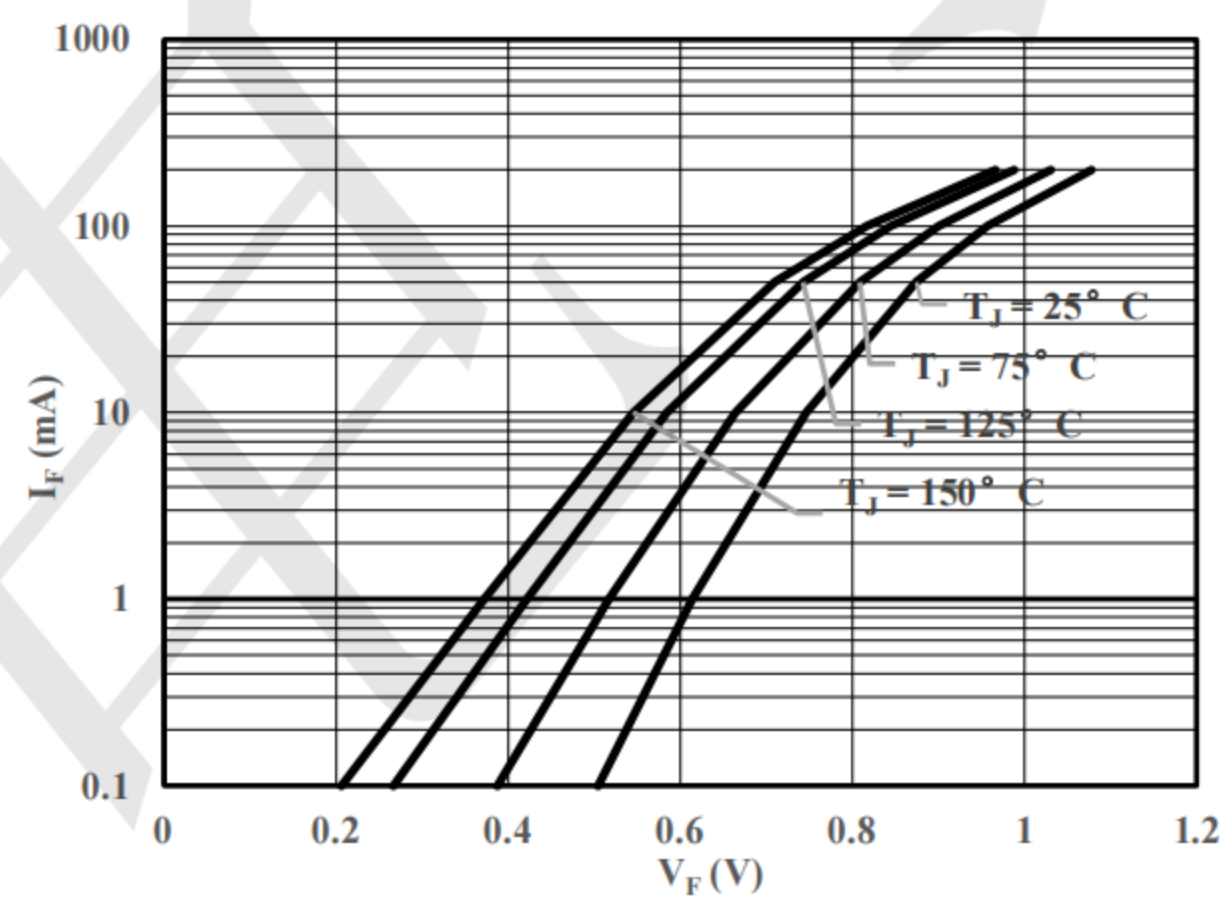
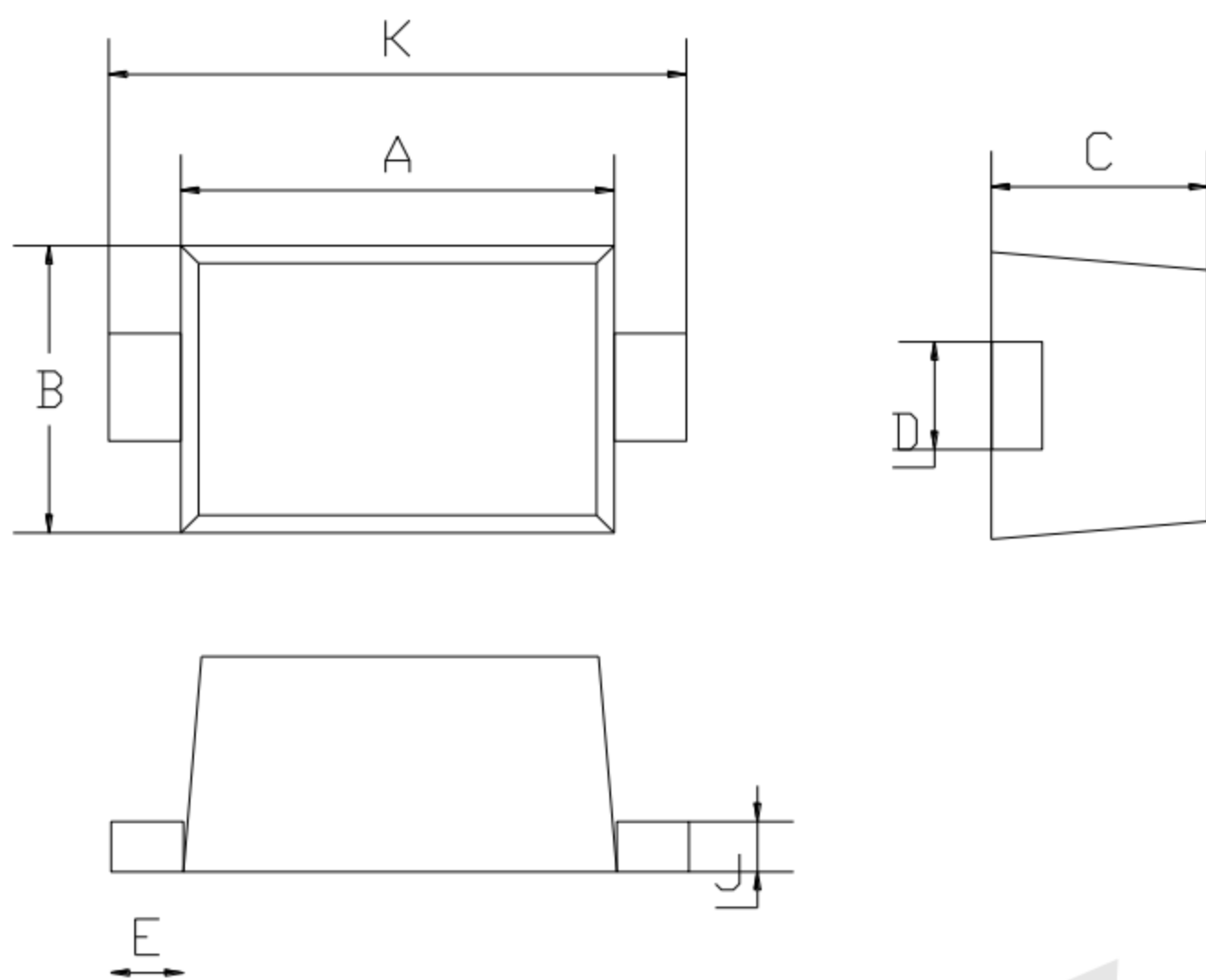


Fig 2 Typical Forward Characteristics

**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)**

