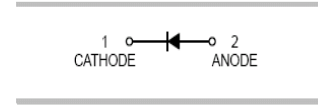




Features

- Low forward voltage
- Low reverse current
- Small package



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
1SS388	SOD-523	3000pcs / 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
Maximum(peak) Forward Current	I _{FM}	300	mA
Continuous Forward Current	I _F	100	mA
Peak Forward Surge Current (10ms single half sine-wave)	I _{FSM}	1	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	150	mW
Thermal Resistance Junction-to-Air ^{*1}	R _{θJA}	667	°C/W
Thermal Resistance Junction-to-Lead ^{*1}	R _{θJL}	663	°C/W
Thermal Resistance Junction-to-Case ^{*1}	R _{θJC}	415	°C/W
Operating Junction Temperature	T _J	125	°C
Storage Temperature Range	T _{STG}	-40 ~ +150	°C



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

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

Notes:

1. Part mounted on FR-4 board with recommended pad layout
2. Pulse width $\leq 380\ \mu\text{s}$, Duty cycle $< 2\%$
3. pulse test , $t_p \leq 5\text{ms}$

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

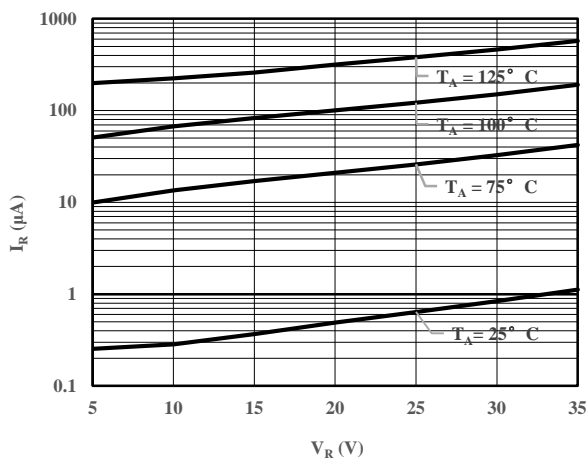


Fig 1 Typical Reverse Characteristic

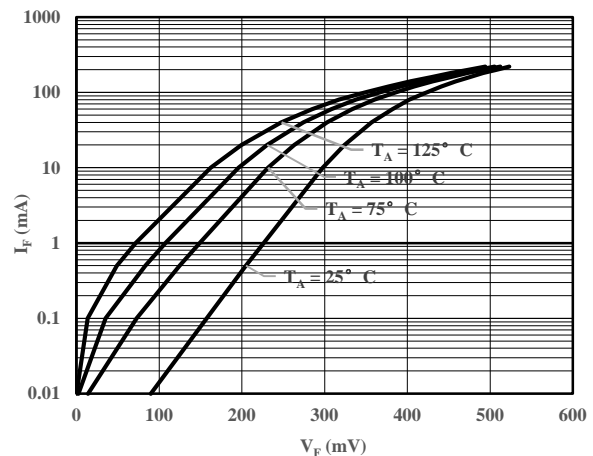


Fig 2 Typical Forward Characteristics

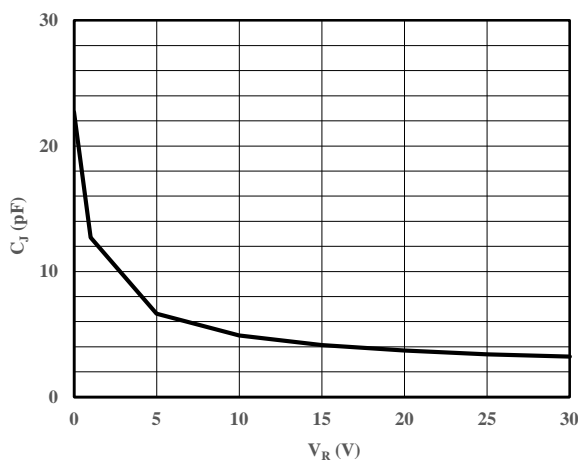


Fig 3 Capacitance Characteristics

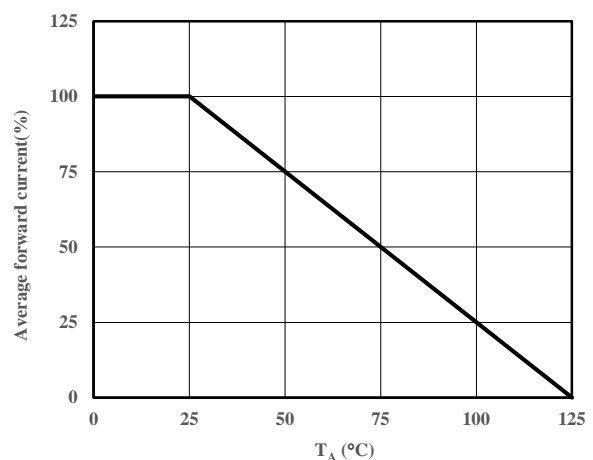
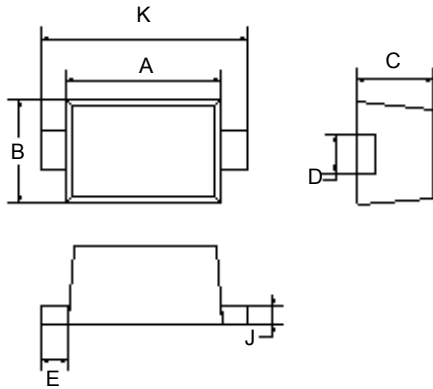


Fig 4 Derating Curve



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

