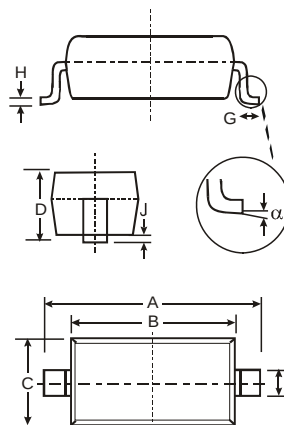


Features

- High breakdown voltage.
- Low turn-on voltage.
- Guard ring construction for transient protection.
- Marking Code: S9



SOD-123		
Dim	Min	Max
A	3.55	3.85
B	2.55	2.85
C	1.40	1.70
D	—	1.35
E	0.45	0.65
	0.55 Typical	
G	0.25	—
H	0.11 Typical	
J	—	0.10
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	100	V
Average Rectified Forward Current	$I_{F(AV)}$	150	mA
Non-repetitive Peak Forward Surge Current at $t = 8.3 \text{ ms}$	I_{FSM}	750	mA
Power Dissipation	P_{tot}	500	mW
Thermal Resistance from Junction to Ambient Air	$R_{\theta JA}$	200	$^\circ\text{C/W}$
Junction Temperature	T_j	125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

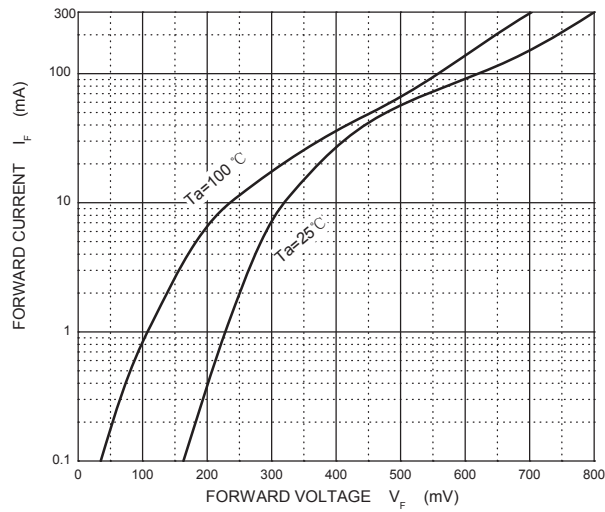
Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage(Note 2)	V_R	$I_R = 100\mu\text{A}$	100			V
Reverse voltage leakage current	I_R	$V_{R1} = 1.5\text{V}$			0.3	μA
		$V_{R2} = 10\text{V}$			0.5	
		$V_{R3} = 50\text{V}$			1	
		$V_{R4} = 75\text{V}$			2	
Forward voltage(Note 2)	V_F	$I_{F1} = 0.1\text{mA}$			0.25	V
		$I_{F2} = 10\text{mA}$			0.45	
		$I_{F3} = 250\text{mA}$			1	
Diode capacitance	C_T	$V_R = 0, f = 1\text{MHz}$		20		pF
		$V_R = 1\text{V}, f = 1\text{MHz}$		12		

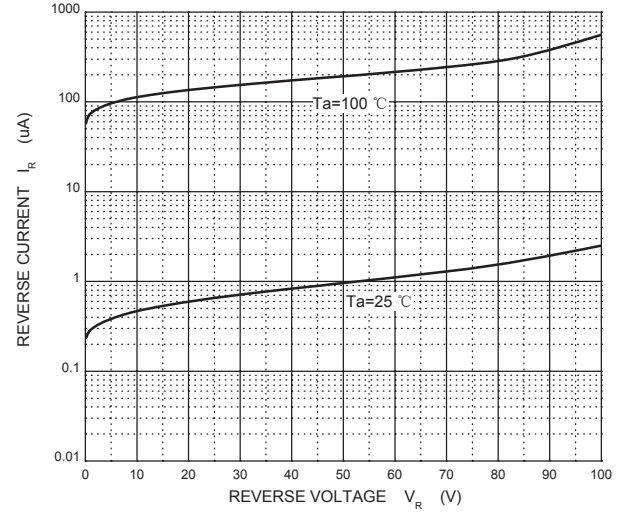
Notes: 1. Part mounted on FR-4 board with recommended pad layout.
 2. Short duration pulse test used to minimize self-heating effect.

TYPICAL TRANSIENT CHARACTERISTICS

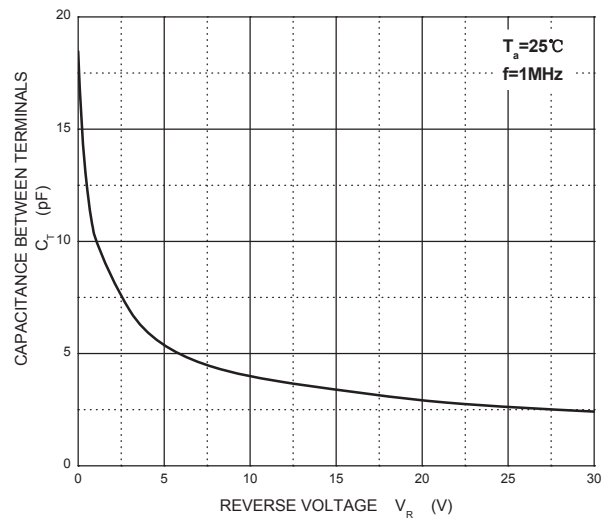
Forward Characteristics



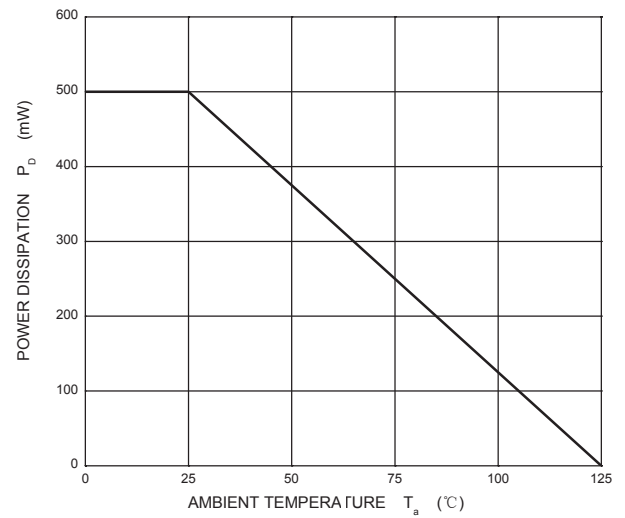
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve



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