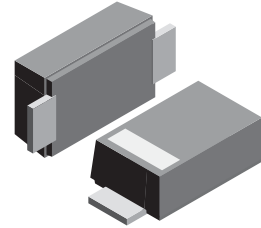


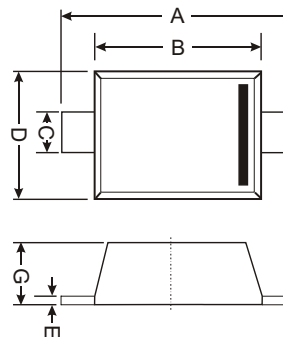
Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance
- Ultra-Small Surface Mount Package



Mechanical Data

- Case: SOD-523, Molded Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Marking Code: S4
- Weight: 0.002 grams (approx.)



SOD-523		
Dim	Min	Max
A	1.50	1.70
B	1.10	1.30
C	0.25	0.35
D	0.70	0.90
E	0.10	0.20
G	0.50	0.70
All Dimensions in mm		

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Forward Continuous Current	I_{FM}	250	mA
Non-Repetitive Peak Forward Surge Current @ $t \leq 1.0\text{s}$	I_{FSM}	1.0	A
Power Dissipation	P_d	150	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	667	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +125	$^\circ\text{C}$

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Breakdown Voltage	$V_{(BR)R}$	40	—	—	V	$I_R = 10\mu\text{A}$
Forward Voltage Drop	V_F	—	—	0.37 0.60	V	$I_F = 20\text{mA}$ $I_F = 200\text{mA}$
Peak Reverse Current	I_R	—	—	5 1	μA μA	$V_R = 30\text{V}$ $V_R = 10\text{V}$
Total Capacitance	C_T	—	50	—	pF	$V_R = 0\text{V}, f = 1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	—	10	—	ns	$I_F = I_R = 200\text{mA}$, $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

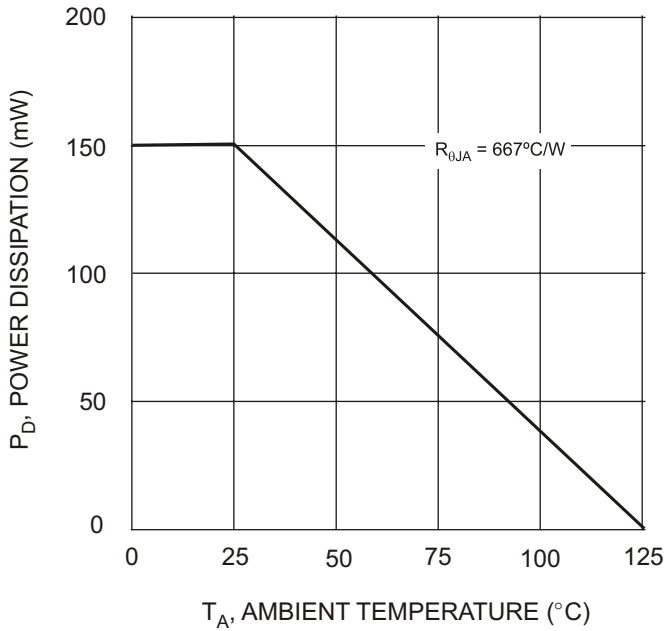


Fig. 1 Derating Curve

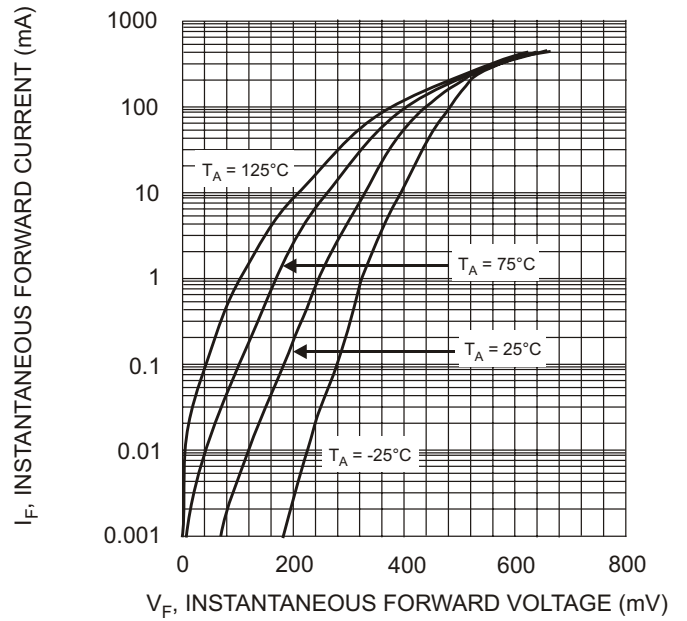


Fig. 2 Typical Forward Characteristics

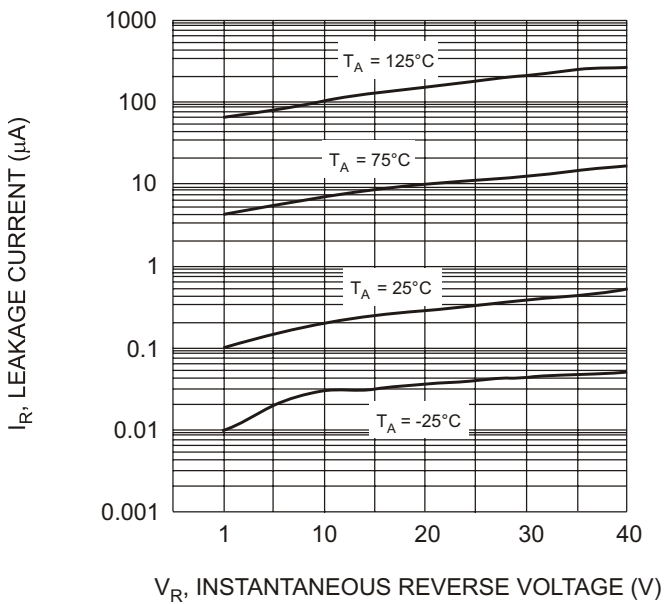


Fig. 3 Typical Reverse Characteristics

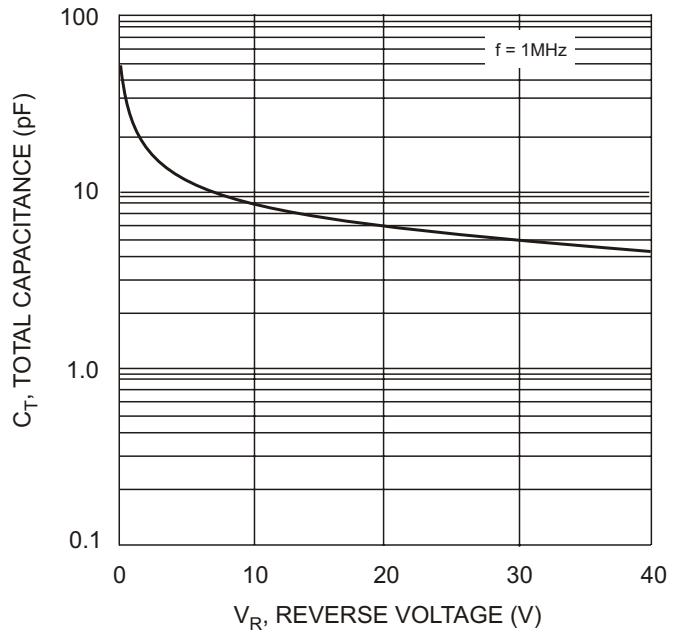


Fig. 4 Typ. Total Capacitance vs Reverse Voltage