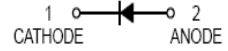


# Surface Mount Low Leakage Diode



## Features:

- Low Leakage Current
- High Reverse Breakdown Voltage
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion



SOD-123

## Applications:

Surface mount fast switching diode

## Max. Rating @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak repetitive reverse voltage	$V_{RRM}$	350	V
Working peak reverse voltage DC reverse voltage	$V_{RWM}$ $V_R$	300	V
RMS reverse voltage	$V_{R(RMS)}$	212	V
Forward continuous current	$I_{FM}$	225	mA
Repetitive peak forward current	$I_{FRM}$	625	mA
Non-Repetitive peak forward surge current @t=1.0us @t=1.0s	$I_{FSM}$	4 1	A
Power dissipation	$P_d$	400	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	312	$^\circ\text{C}/\text{W}$
Operating and storage temperature range	$T_J, T_{STG}$	-65 to +150	$^\circ\text{C}$

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

Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Reverse breakdown voltage	$V_{(BR)R}$	350	-	-	V	$I_R = 150\mu\text{A}$
Forward voltage	$V_F$	-	0.78 0.93 1.03	0.87 1 1.25	V	$I_F = 20\text{mA}$ $I_F = 100\text{mA}$ $I_F = 200\text{mA}$
Reverse current	$I_R$	-	30 35	100 100	nA uA	$V_R = 240\text{V}, T_J = 25^\circ\text{C}$ $V_R = 240\text{V}, T_J = 150^\circ\text{C}$
Total capacitance	$C_T$	-	1	5	pF	$V_R = 0\text{V}, f = 1\text{MHz}$
Reverse recovery time	$t_{rr}$	-	-	50	ns	$I_F = I_R = 30\text{mA}$ , $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

# Surface Mount Low Leakage Diode



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

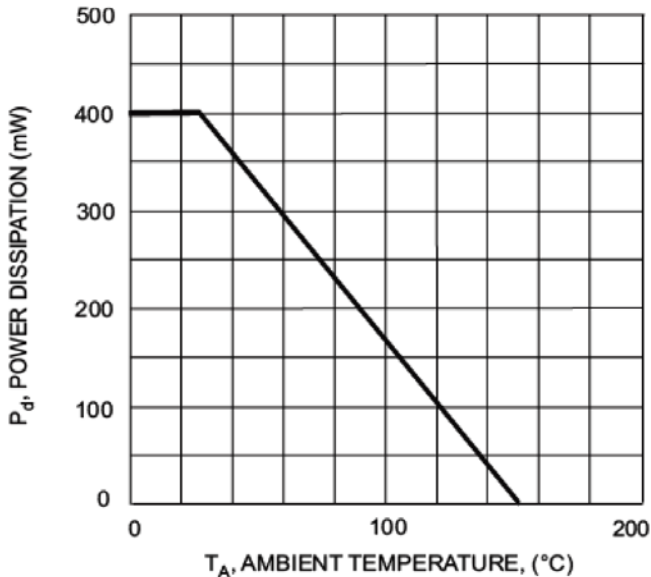


Fig. 1 Power Derating Curve

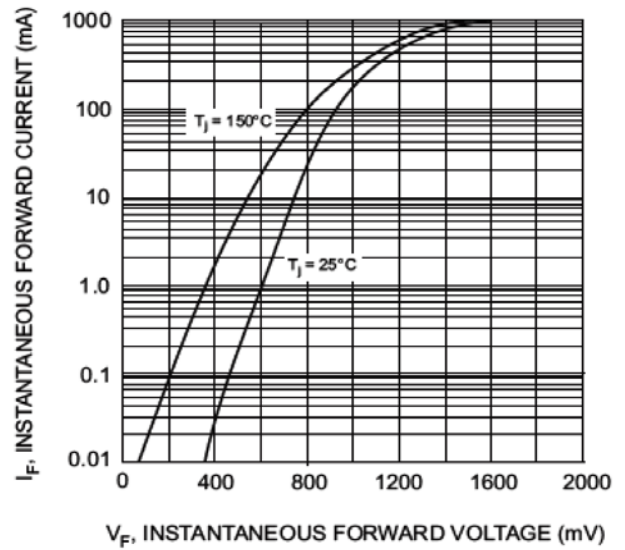


Fig. 2 Typical Forward Characteristics

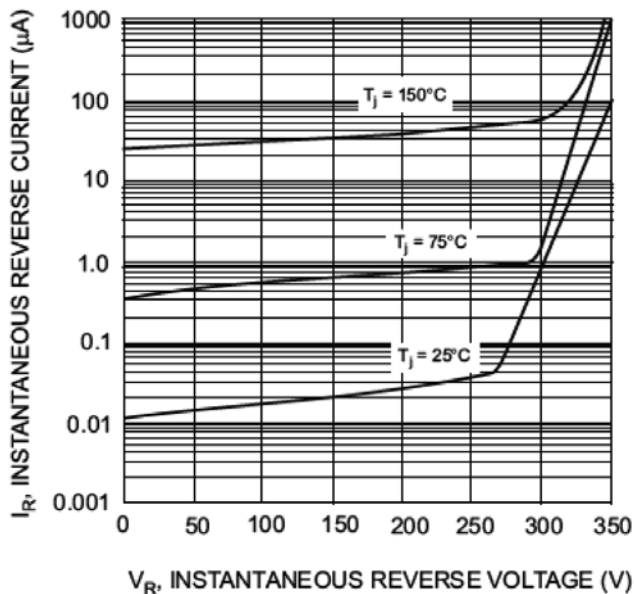


Fig. 3 Typical Reverse Characteristics

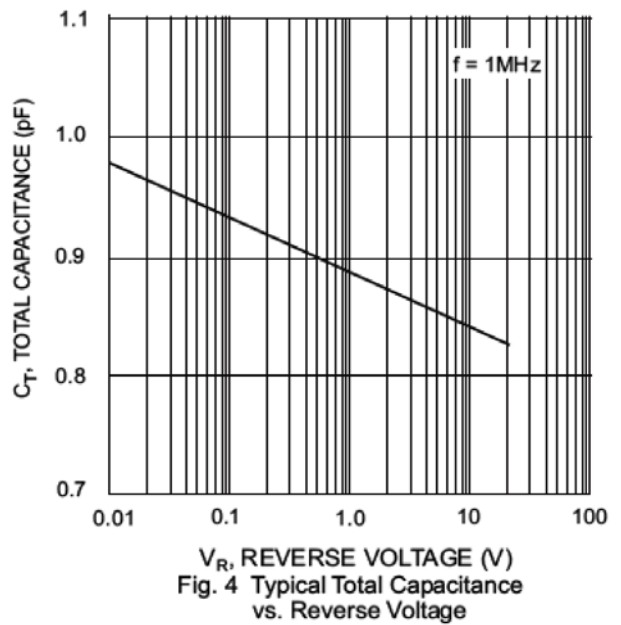


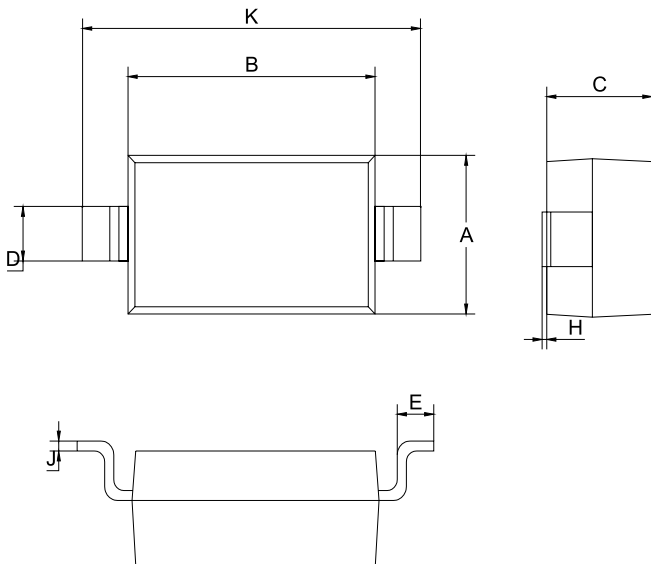
Fig. 4 Typical Total Capacitance vs. Reverse Voltage



# Surface Mount Low Leakage Diode

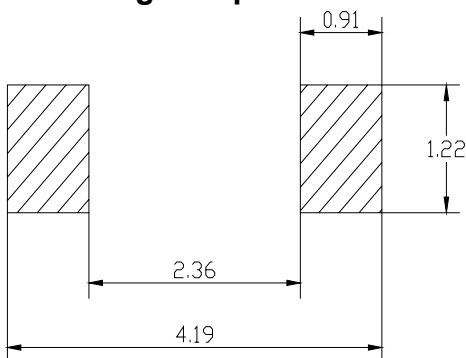


## Plastic surface mounted package



SOD-123		
Dim	Min	Max
A	1.4	1.8
B	2.55	2.85
C	1.15 Typical	
D	0.55 Typical	
E	0.3	0.4
H	0.02	0.1
J	0.1 Typical	
K	3.55	3.85
All Dimensions in mm		

## Soldering Footprint



Unit: mm

## Package Information

Device	Package	Shipping
BAV3004W-7-F	SOD-123	3,000 / Tape & Reel

## Part Number Table

Description	Part Number
Surface mount low leakage diode	BAV3004W-7-F

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