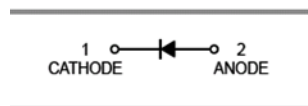


# Silicon Epitaxial Planar Diode



## Features:

- Fast Switching Speed :  $t_{rr} = 4\text{ns}$  (Typ)
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance
- Available in Lead Free Version



SOD-323

## Applications:

Surface mount fast switching diode

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

Parameter	Symbol	Limits	Unit
Non-Repetitive peak reverse voltage	$V_{RM}$	100	V
Peak repetitive peak reverse voltage Working peak reverse voltage DC reverse voltage	$V_{RRM}$ $V_{RMS}$ $V_R$	75	V
RMS reverse voltage	$V_{R(RMS)}$	53	V
Average rectified output current	$I_O$	150	mA
Non-Repetitive peak forward surge current    @ $t = 1\mu\text{s}$ @ $t = 1\text{s}$	$I_{FSM}$	2 1	A
Power dissipation	$P_D$	200	mW
Thermal resistance, junction to ambient air	$R_{\theta JA}$	625	$^\circ\text{C/W}$
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

Parameter	Symbol	Conditions	Min.	Max.	Unit
Reverse breakdown voltage	$V_{(BR)R}$	$I_R = 1\mu\text{A}$	75	-	V
Forward voltage	$V_F$	$I_F = 1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$	-	0.715 0.855 1 1.25	V
Reverse current	$I_R$	$V_R = 75\text{V}$ $V_R = 20\text{V}$	-	1 25	$\mu\text{A}$ nA
Capacitance between terminals	$C_T$	$V_R = 1\text{V}, f = 1\text{MHz}$	-	2	pF
Junction capacitance	$C_J$	$I_F = I_R = 10\text{mA}$ , $I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	-	4	ns

# Silicon Epitaxial Planar Diode



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

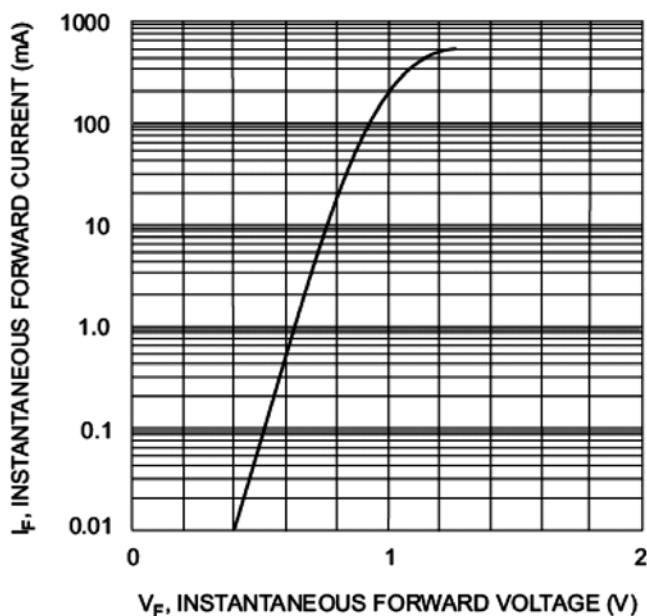


Fig. 1 Forward Characteristics

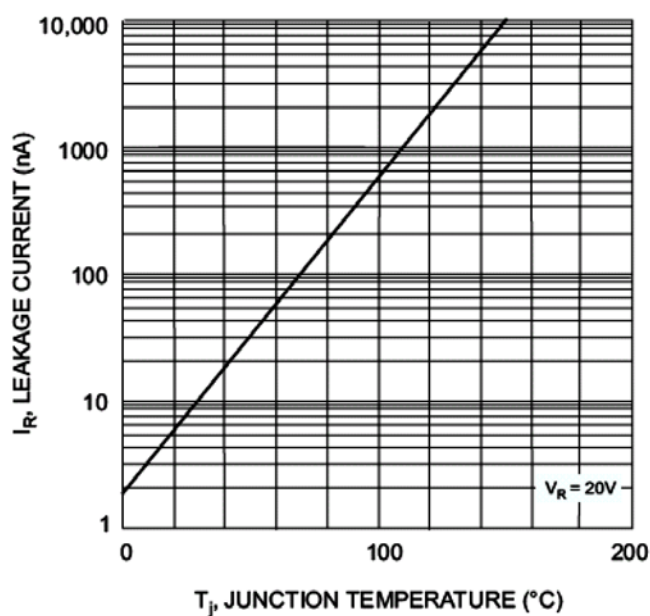
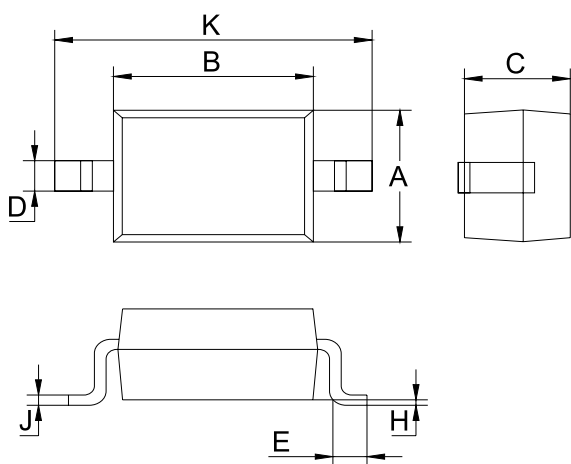


Fig. 2 Leakage Current vs Junction Temperature

## Plastic surface mounted package

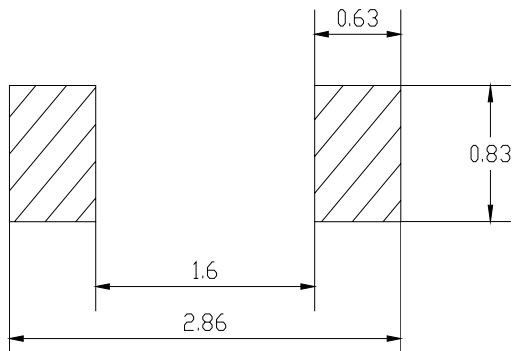


SOD-323		
Dim	Min	Max
A	1.275	1.325
B	1.675	1.725
C	0.9 Typical	
D	0.25	0.35
E	0.27	0.37
H	0.02	0.1
J	0.1 Typical	
K	2.6	2.7
All Dimensions in mm		

# Silicon Epitaxial Planar Diode



## Soldering Footprint



Unit : mm

## Package Information

Device	Package	Shipping
BAV16WS-7-F	SOD-323	3,000 / Tape & Reel

## Part Number Table

Description	Part Number
Silicon Epitaxial Planar Diode	BAV16WS-7-F

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