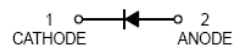


# Silicon Epitaxial Planar Diode



SOD-323

## Features:

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

## Applications:

- Surface mount fast switching diode

## Maximum Ratings:

Ratings at 25°C unless otherwise specified.

Characteristic	Symbol	Value	Unit
Non-Repetitive peak reverse voltage	$V_{RM}$	100	V
Peak repetitive reverse voltage Working peak reverse voltage DC reverse voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	75	V
RMS reverse voltage	$V_{R(RMS)}$	53	V
Forward continuous current	$I_{FM}$	300	mA
Average rectified output current	$I_o$	150	mA
Non-Repetitive peak forward surge current at $t=1\mu\text{s}$ at $t=1\text{s}$	$I_{FSM}$	2 1	A
Power dissipation	$P_d$	200	mW
Thermal resistance junction to Ambient Air	$R_{\theta JA}$	625	°C/W
Operating and storage temperature range	$T_j, T_{STG}$	-65 to+150	°C

## Electrical Characteristics:

Ratings at 25°C unless otherwise specified.

Characteristic	Symbol	Min.	Max.	Unit	Test Condition
Reverse breakdown voltage	$V_{(BR)R}$	75	-	V	$I_R=10\mu A$
Forward voltage	$V_F$	-	0.715 0.855 1 1.25	V	$I_F=1mA$ $I_F=10mA$ $I_F=50mA$ $I_F=150mA$
Reverse current	$I_R$	-	1 25	$\mu A$ nA	$V_R=75V$ $V_R=20V$
Capacitance between terminals	$C_T$	-	2	pF	$V_R=0, f=1MHz$
Reverse recovery time	$t_{rr}$	-	4	ns	$I_F=I_R=10mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

## Typical Characteristics:

$T_A = 25^\circ C$  unless otherwise specified.

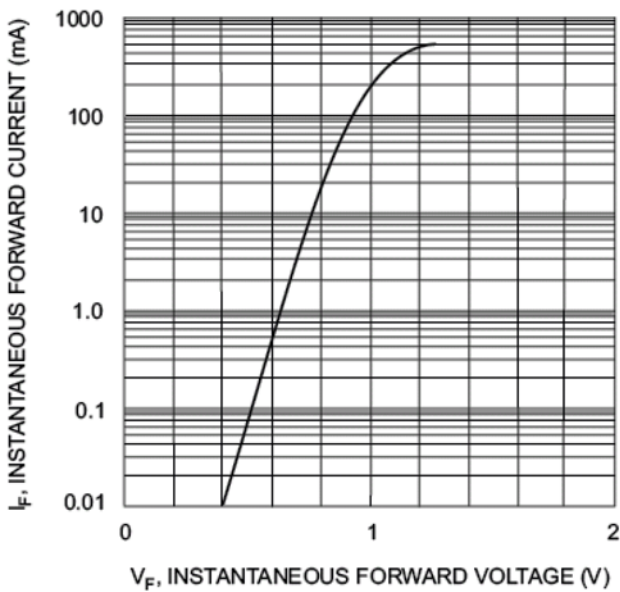


Fig. 1 Forward Characteristics

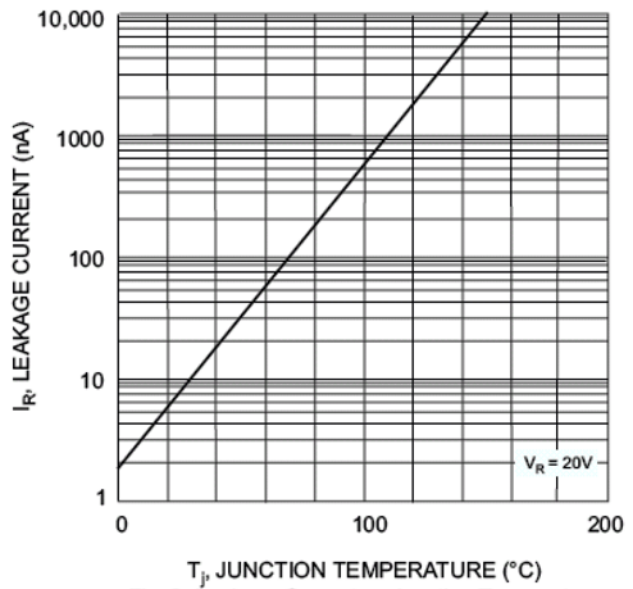
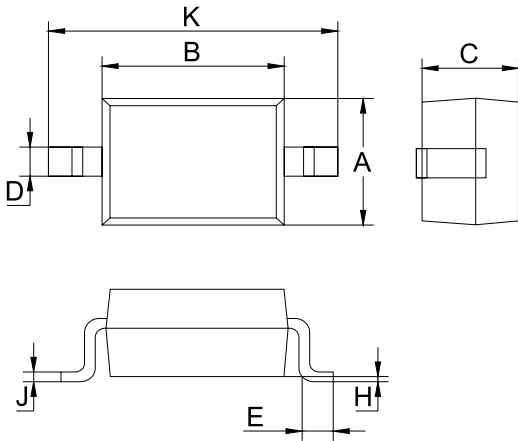


Fig. 2 Leakage Current vs Junction Temperature

# Silicon Epitaxial Planar Diode

## Package Outline:

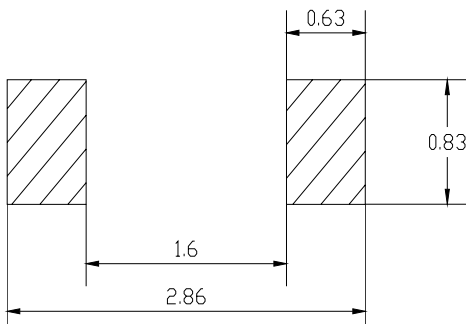
Plastic surface mounted package



SOD-323		
Dim.	Min.	Max.
A	1.275	1.325
B	1.675	1.725
C	0.95 Typ.	
D	0.25	0.35
E	0.27	0.37
H	0.02	0.1
J	0.1 Typ.	
K	2.6	2.7

Dimensions : Millimetres

## Soldering Footprint:



## Package Information:

Device	Package	Shipping
1N4148WS-7-F	SOD-323	3,000 / Tape & Reel

## Part Number Table

Description	Part Number
Silicon Epitaxial Planar Diode	1N4148WS-7-F

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