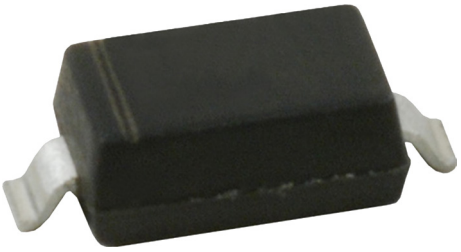
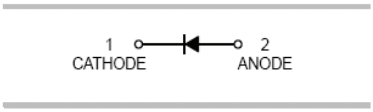
Silicon Epitaxial Planar Diode





SOD-323

Features:

- Fast Switching Speed : t_{rr} = 4ns (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=1μs at t=1s	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=10μA
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	μA 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 × I_R,R_L=100Ω

Typical Characteristics:

T_A = 25°C unless otherwise specified.

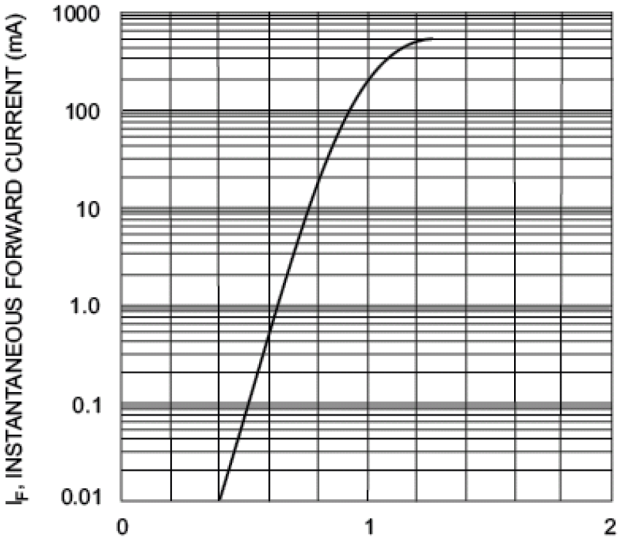


Fig. 1 Forward Characteristics

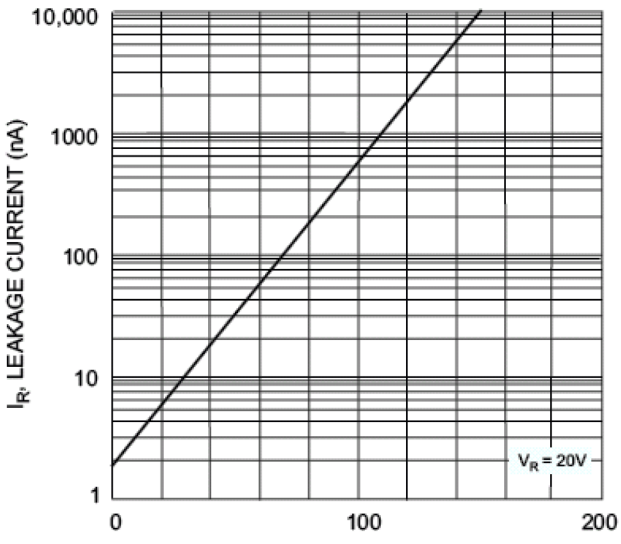
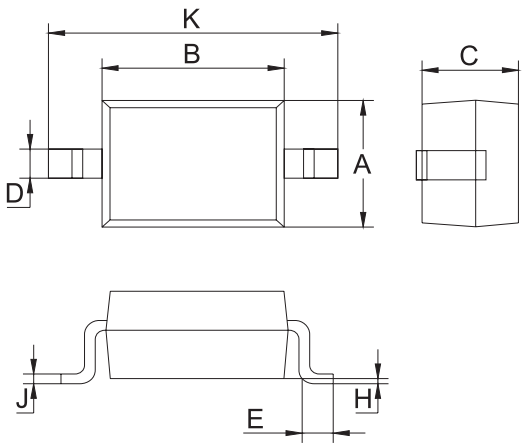


Fig. 2 Leakage Current vs Junction Temperature

Package Outline:

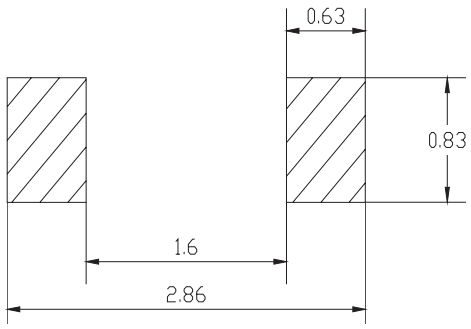
Plastic surface mounted package



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