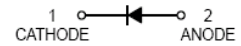


Silicon Epitaxial Planar Diode



SOD-323

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

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

Silicon Epitaxial Planar Diode



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	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	$I_F=I_R=10mA$, $I_{rr}=0.1 \times I_R$, $R_L=100\Omega$

Typical Characteristics:

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

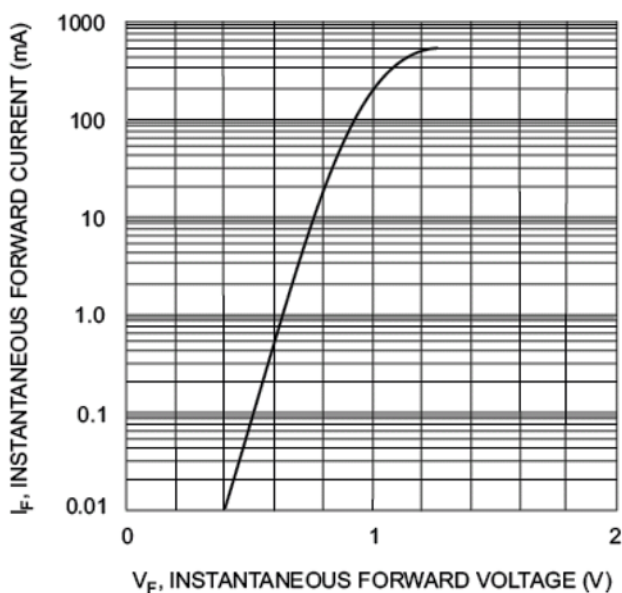


Fig. 1 Forward Characteristics

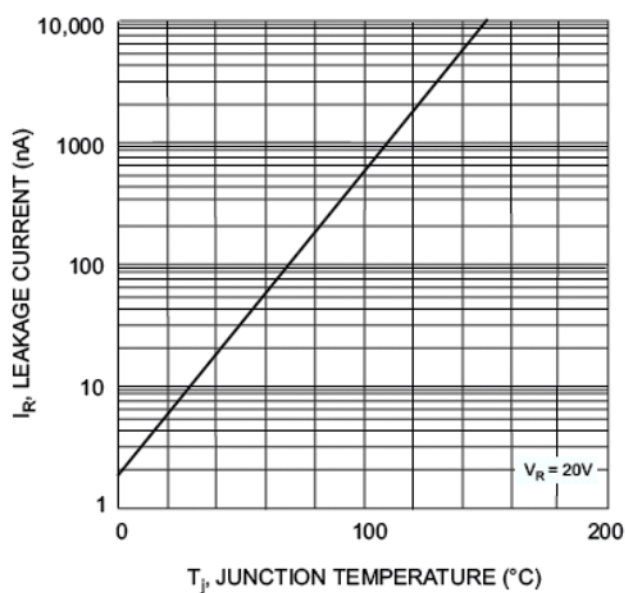
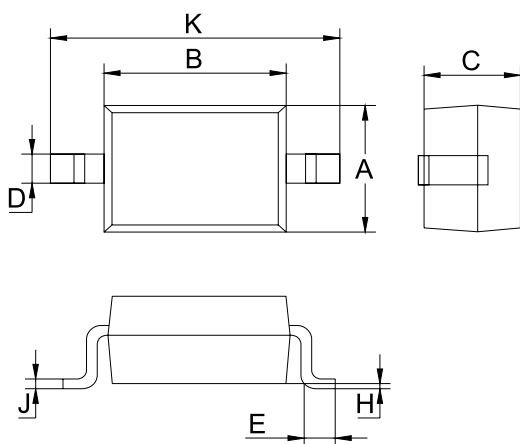


Fig. 2 Leakage Current vs Junction Temperature

Silicon Epitaxial Planar Diode

Package Outline:

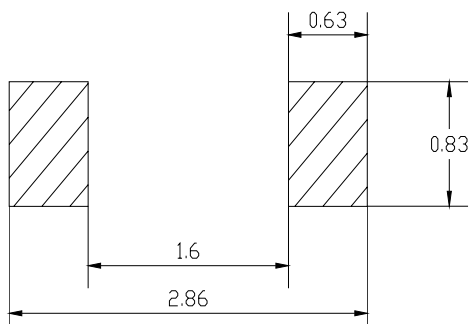
Plastic surface mounted package



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

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.