Silicon Epitaxial Planar Diode

multicomp PRO

1 CATHODE — 2 ANODE

SOD-123

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	350	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	357	°C/W
Operating and storage temperature range	T_j, T_{STG}	-65 to+150	°C

10/09/19   V1.0

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Electrical Characteristics:

Ratings at 25°C unless otherwise specified.

Characteristic	Symbol	Min.	Max.	Unit	Test Condition
Reverse breakdown voltage	$V_{(BR)R}$	75	-	V	$I_R = 1\mu A$
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:

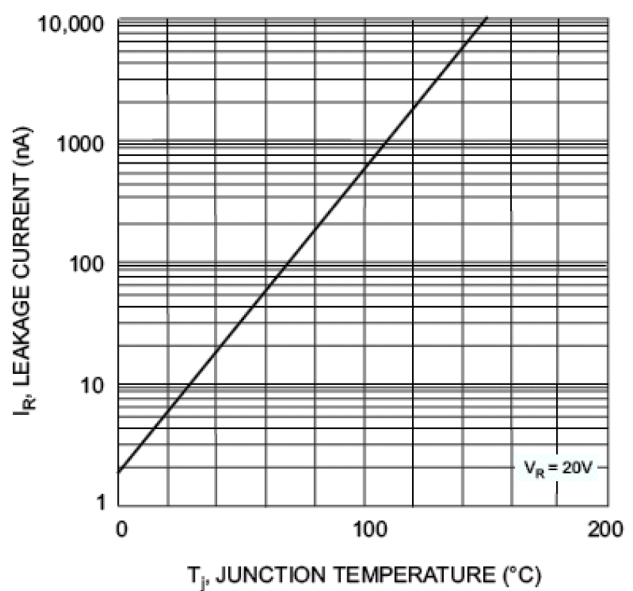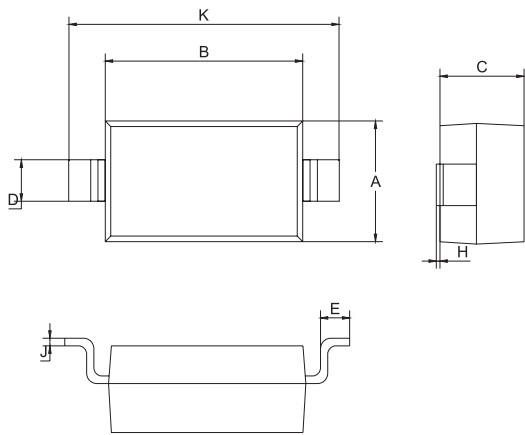**$T_A = 25°C$ unless otherwise specified.**
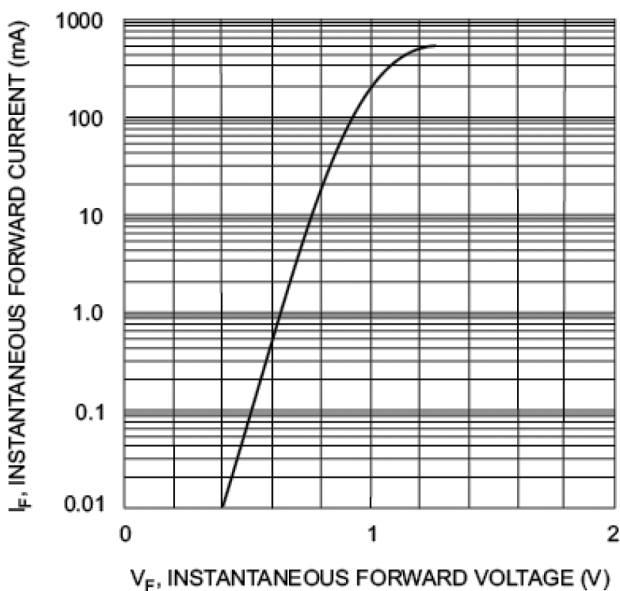
Fig. 1 Forward Characteristics

Fig. 2 Leakage Current vs Junction Temperature

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Page <2>   10/09/19   V1.0

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Package Outline:

Plastic surface mounted package

SOD-123		
Dim.	**Min.**	**Max.**
A	1.4	1.8
B	2.55	2.85
C	1.15 Typ.	
D	0.5	0.6
E	0.3	0.4
H	0.02	0.1
J	0.1 Typ.	
K	3.55	3.85

Dimensions : Millimetres

Soldering Footprint:
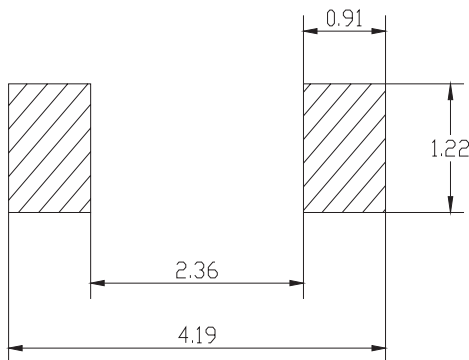
Package Information:

Device	Package	Shipping
1N4148W-13-F	SOD-123	3,000 / Tape & Reel

Part Number Table

Description	Part Number
Silicon Epitaxial Planar Diode	1N4148W-13-F

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10/09/19 V1.0