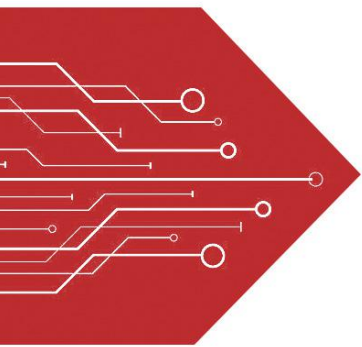


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SEMICONDUCTOR



ESD



TVS



TSS



MOV



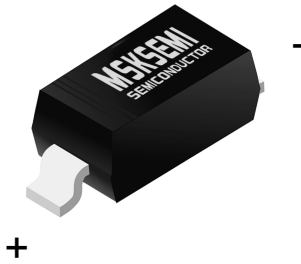
GDT



PLED

Product data sheet

www.msksemi.com



SOD-123

FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

Maximum Ratings and Electrical Characteristics, Single Diode @T_A=25°C

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak reverse voltage	V _{RM}	100	V
Peak Repetitive Peak reverse voltage	V _{RRM}	75	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	53	V
Forward Continuous Current	I _{FM}	300	mA
Average Rectified Output Current	I _O	150	mA
Peak forward surge current @=1.0μs @=1.0s	I _{FSM}	2.0 1.0	A
Power Dissipation	P _d	400	mW
Thermal Resistance Junction to Ambient	R _{θJA}	315	°C/W
Junction temperature	T _j	125	°C
Storage temperature	T _{STG}	-65~+150	°C

Electrical Ratings @T_A=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V _{F1}			0.715	V	I _F =1mA
	V _{F2}			0.855	V	I _F =10mA
	V _{F3}			1.0	V	I _F =50mA
	V _{F4}			1.25	V	I _F =150mA
Reverse current	I _{R1}			1	μA	V _R =75V
	I _{R2}			25	nA	V _R =20V
Capacitance between terminals	C _T			2	pF	V _R =0V, f=1MHz
Reverse Recovery Time	t _{rr}			4	ns	I _F =I _R =10mA I _{rr} =0.1X I _R , R _L =100Ω

Typical Characteristics

1N4148W-7-MS/BAV16W-7-MF

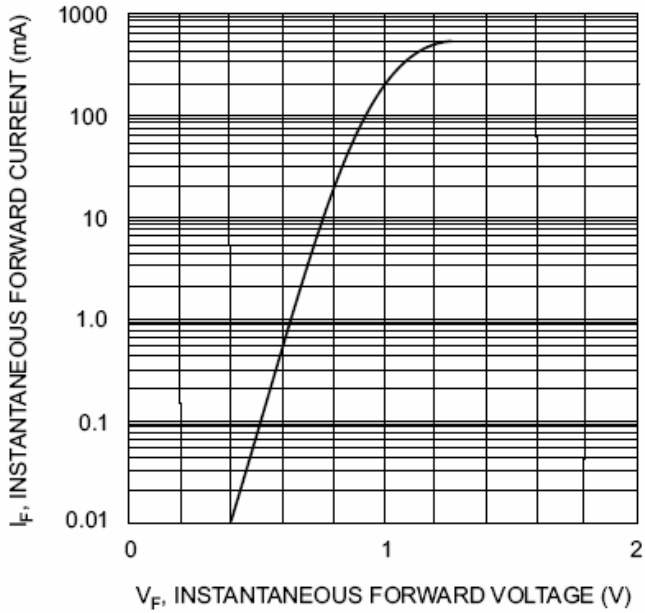


Fig. 1 Forward Characteristics

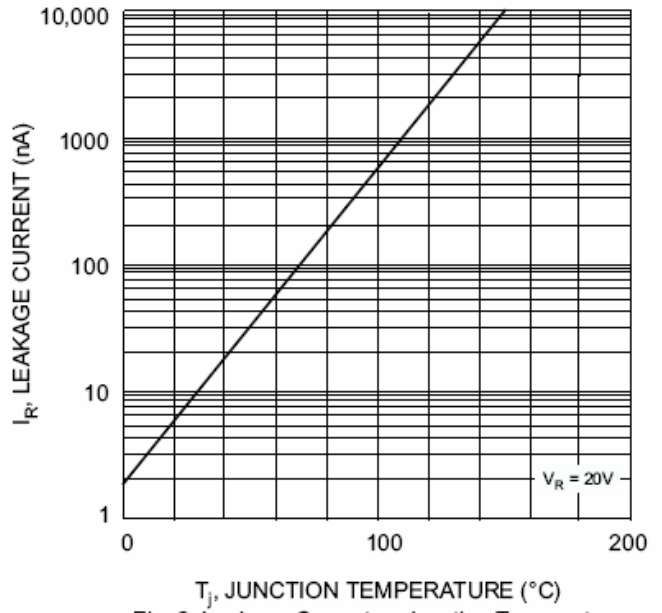
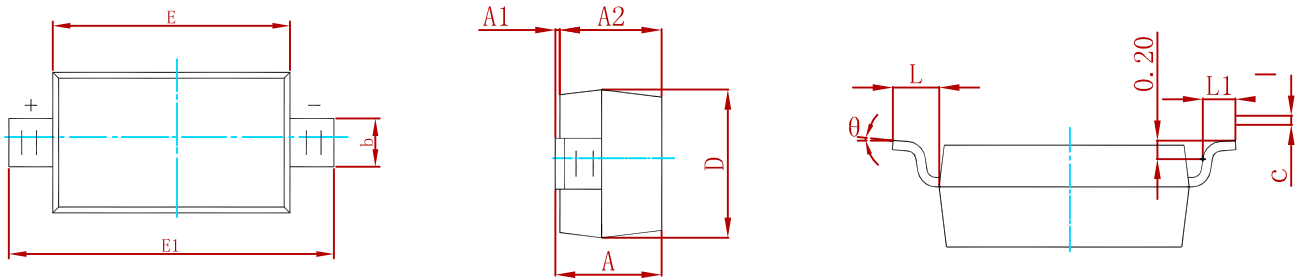


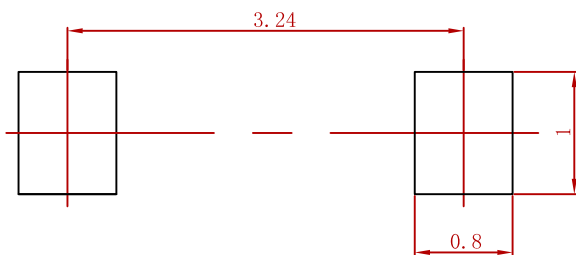
Fig. 2 Leakage Current vs Junction Temperature

PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

Suggested Pad Layout



- Note:**
1. Controlling dimension: in millimeters.
 2. General tolerance: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY	MARK
1N4148W-7-MS	SOD-123	3000	T4
BAV16W-7-MS	SOD-123	3000	T6

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