

**1N4148W-AU****SURFACE MOUNT SWITCHING DIODE**

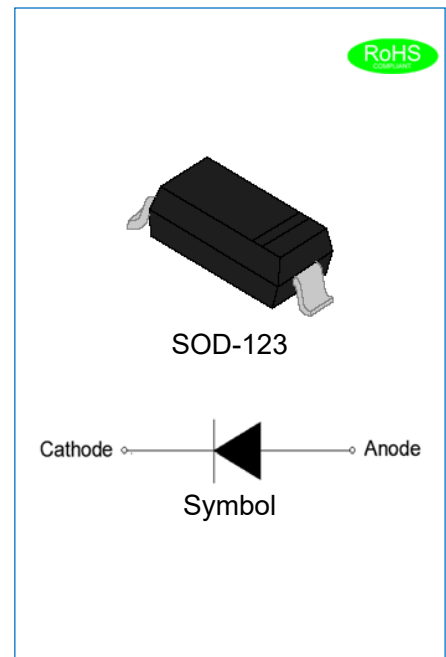
Rev.0.2

FEATURES

- ✧ Fast Switching Speed
- ✧ Surface Mount Package Ideally Suited for Automatic Insertion
- ✧ For Surface Mounted Applications
- ✧ RoHS Compliant/ Green EMC
- ✧ For General Purpose Switching Applications
- ✧ High Conductance
- ✧ AEC-Q101 qualified

MECHANICAL DATA

- ✧ Case: SOD-123, Plastic
- ✧ Terminals: Solderable per J-STD-002
- ✧ Polarity: Cathode Band
- ✧ Quantity Per Reel: 3,000 pcs
- ✧ Type Code: T4

**MAXIMUM RATING**

(Rating at 25°C ambient temperature unless otherwise specified.)

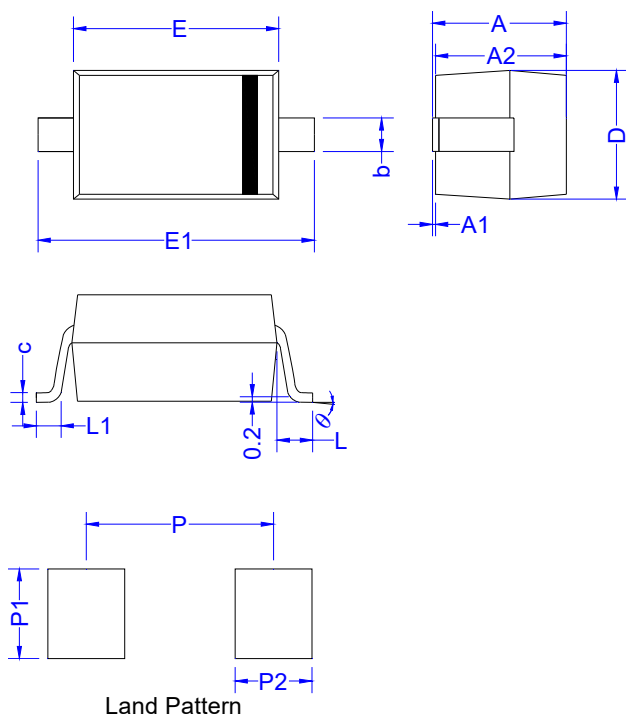
Parameter		Symbol	1N4148W-AU	Unit
Continuous Reverse Voltage		V_R	100	V
Peak Repetitive Reverse Voltage		V_{RM}	100	V
Average Rectified Output Current		I_O	150	mA
Peak Forward Current		I_{FM}	300	mA
Non-Repetitive Forward Surge Current	$t_p=1\mu s$	I_{FSM}	2	A
	$t_p=1s$		1	
Power Dissipation at $T_A=25^\circ C$		P_D	400	mW
Thermal Resistance (Junction to Ambient)		$R_{\theta JA}$	312.5	$^\circ C/W$
Operating Junction Temperature Range		T_j	-55 to +150	$^\circ C$
Storage Temperature Range		T_{stg}	-55 to +150	$^\circ C$

ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified.)

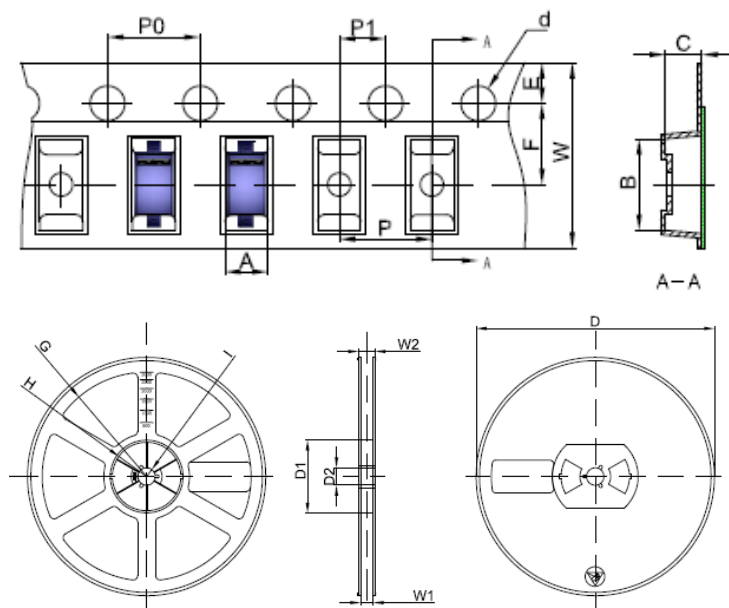
Symbol	Parameter	Conditions	Value			Unit
			Min.	Typ.	Max.	
V_F	Forward Voltage	$I_F=1\text{mA}$	-	-	0.715	V
		$I_F=10\text{mA}$	-	-	0.855	V
		$I_F=50\text{mA}$	-	-	1.0	V
		$I_F=150\text{mA}$	-	-	1.25	V
I_R	Reverse Current	$V_R=75\text{V}, T_j=25^\circ\text{C}$	-	-	1	μA
		$V_R=20\text{V}, T_j=25^\circ\text{C}$	-	-	25	nA
		$V_R=75\text{V}, T_j=150^\circ\text{C}$	-	-	50	μA
C_T	Capacitance	$V_R=0\text{V}, f=1\text{MHz}$	-	-	2	pF
T_{rr}	Reverse Recovery Time	$I_F=I_R=10\text{mA}$ $I_{RR}=1\text{mA}, V_R=6\text{V}$	-	-	4	ns

PACKAGE MECHANICAL DATA



Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	1.05	1.25	0.041	0.049
A1	0.00	0.10	0.000	0.004
A2	1.05	1.15	0.041	0.045
b	0.45	0.65	0.018	0.026
c	0.08	0.15	0.003	0.006
D	1.50	1.70	0.059	0.067
E	2.60	2.80	0.102	0.110
E1	3.55	3.85	0.140	0.152
L	0.50 REF.		0.020 REF.	
L1	0.25	0.45	0.010	0.018
θ	0°	8°	0°	8°
P	3.24		0.128	
P1	1.00		0.039	
P2	0.80		0.031	

TAPE AND REEL SPECIFICATION-SOD-123



Packaging description:

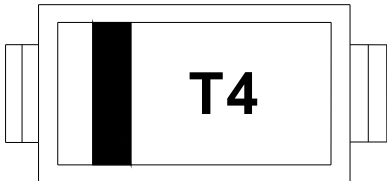
SOD-123 parts are shipped in tape. The carrier tape is made from a dissipative(carbon filled) polycarbonate resin. The cover tape is a multilayer film(heat activated adhesive in nature)primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and made of polystyrene plastic(anti-static coated).

Symbol	Millimeters	Inches
	Typ.	Typ.
A	1.85	0.073
B	3.95	0.156
C	1.57	0.062
d	Φ1.55	Φ 0.061
E	1.75	0.069
F	3.50	0.138
P0	4.0	0.157
P	4.0	0.157
P1	2.0	0.079
W	8.00	0.315
D	Φ178.0	Φ7.008
D1	54.40	2.142
D2	13.0	0.512
G	R78.0	R3.071
H	R25.60	R1.008
I	R6.50	R0.256
W1	9.50	0.374
W2	12.30	0.484

ORDERING INFORMATION

OUTLINE	PACKAGE	REEL SIZE	QUANTITY PER REEL
TAPING	SOD-123	7 Inch	3,000PCS

MARKING CODE

Part Number	Marking Code
1N4148W-AU	

CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics

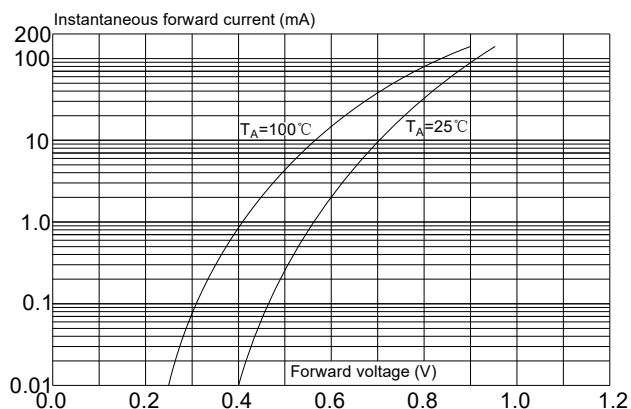


FIG.2: Typical reverse characteristics

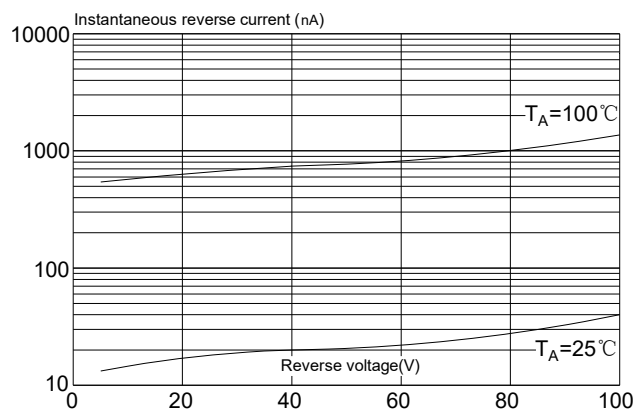


FIG.3: Typical capacitance characteristics

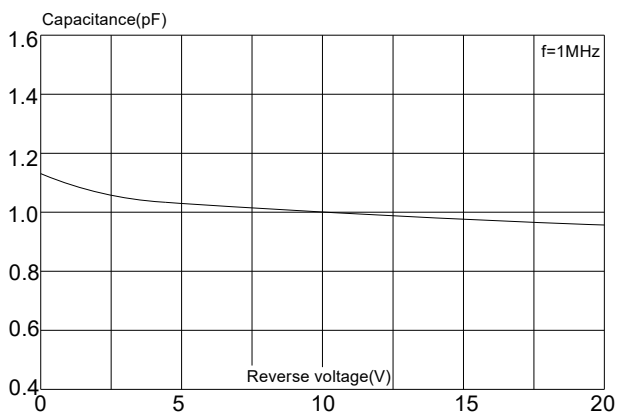
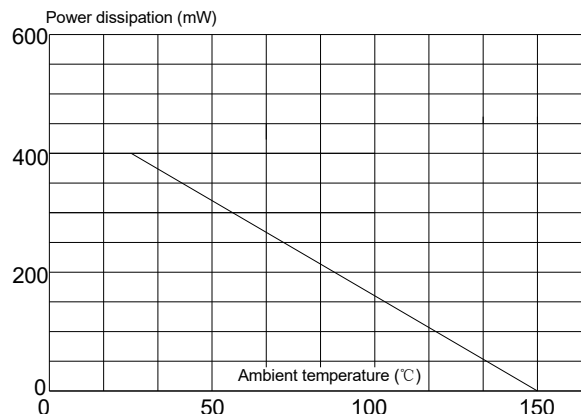


FIG.4: Power derating curve



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