



## 1N4148W SURFACE MOUNT SWITCHING DIODE

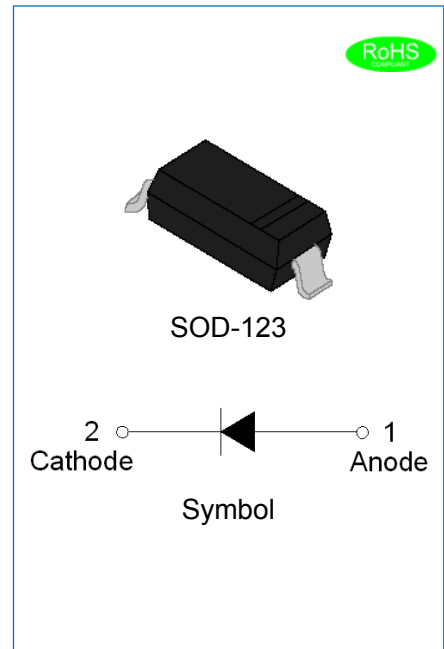
Rev.1.0

### 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

### MECHANICAL DATA

- ✧ Case: SOD-123, Plastic
- ✧ Terminals: Solderable per J-STD-002
- ✧ Polarity: Cathode Band
- ✧ Weight: 0.01 grams(approx.)
- ✧ Quantity Per Reel:3,000pcs
- ✧ Type Code: T4



### MAXIMUM RATING

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

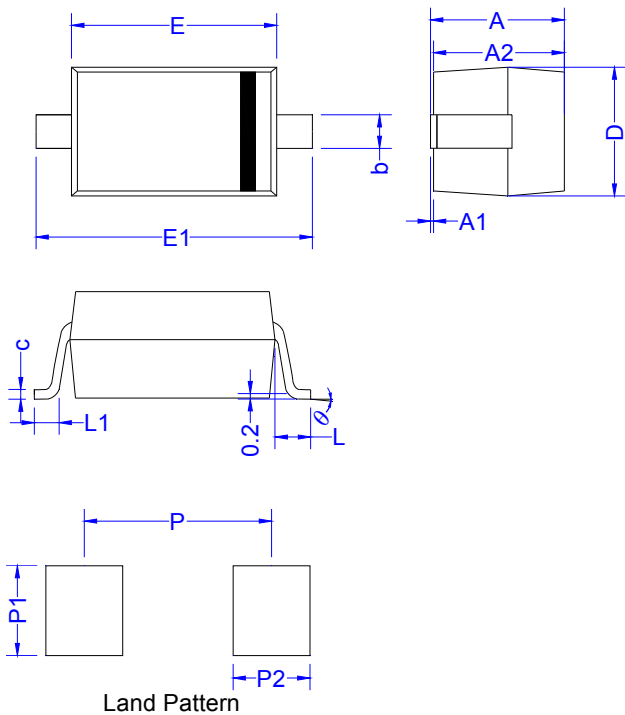
Parameter	Symbol	1N4148W	Unit	
Continuous Reverse Voltage	$V_R$	100	V	
Peak Repetitive Reverse Voltage	$V_{RM}$	100	V	
Average Rectified Output Current	$I_O$	150	mA	
Peak Forward Current	$I_{FM}$	300	mA	
Non-Repetitive Forward Surge Current	$I_{FSM}$	$t_p=1\mu s$	2	A
		$t_p=1s$	1	
Power Dissipation at $T_A=25^\circ C$	$P_D$	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.)

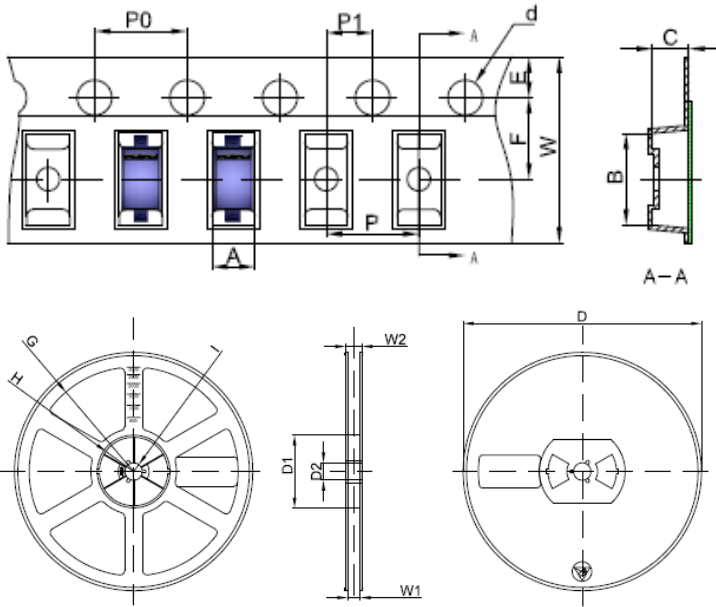
Symbol	Parameter	Conditions	Value			Unit
			Min.	Typ.	Max.	
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> =1mA	-	-	0.715	V
		I <sub>F</sub> =10mA	-	-	0.855	V
		I <sub>F</sub> =50mA	-	-	1.0	V
		I <sub>F</sub> =150mA	-	-	1.25	V
I <sub>R</sub>	Reverse Current	V <sub>R</sub> =75V, T <sub>j</sub> =25°C	-	-	1	μA
		V <sub>R</sub> =20V, T <sub>j</sub> =25°C	-	-	25	nA
		V <sub>R</sub> =75V, T <sub>j</sub> =150°C	-	-	50	μA
C <sub>T</sub>	Capacitance	V <sub>R</sub> =0V, f=1MHz	-	-	2	pF
T <sub>rr</sub>	Reverse Recovery Time	I <sub>F</sub> =I <sub>R</sub> =10mA I <sub>RR</sub> =1mA, R <sub>L</sub> =100Ω	-	-	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**



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

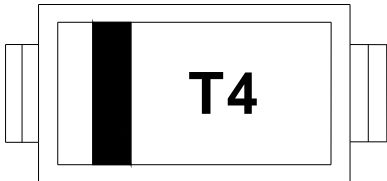
**Packaging description:**

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).

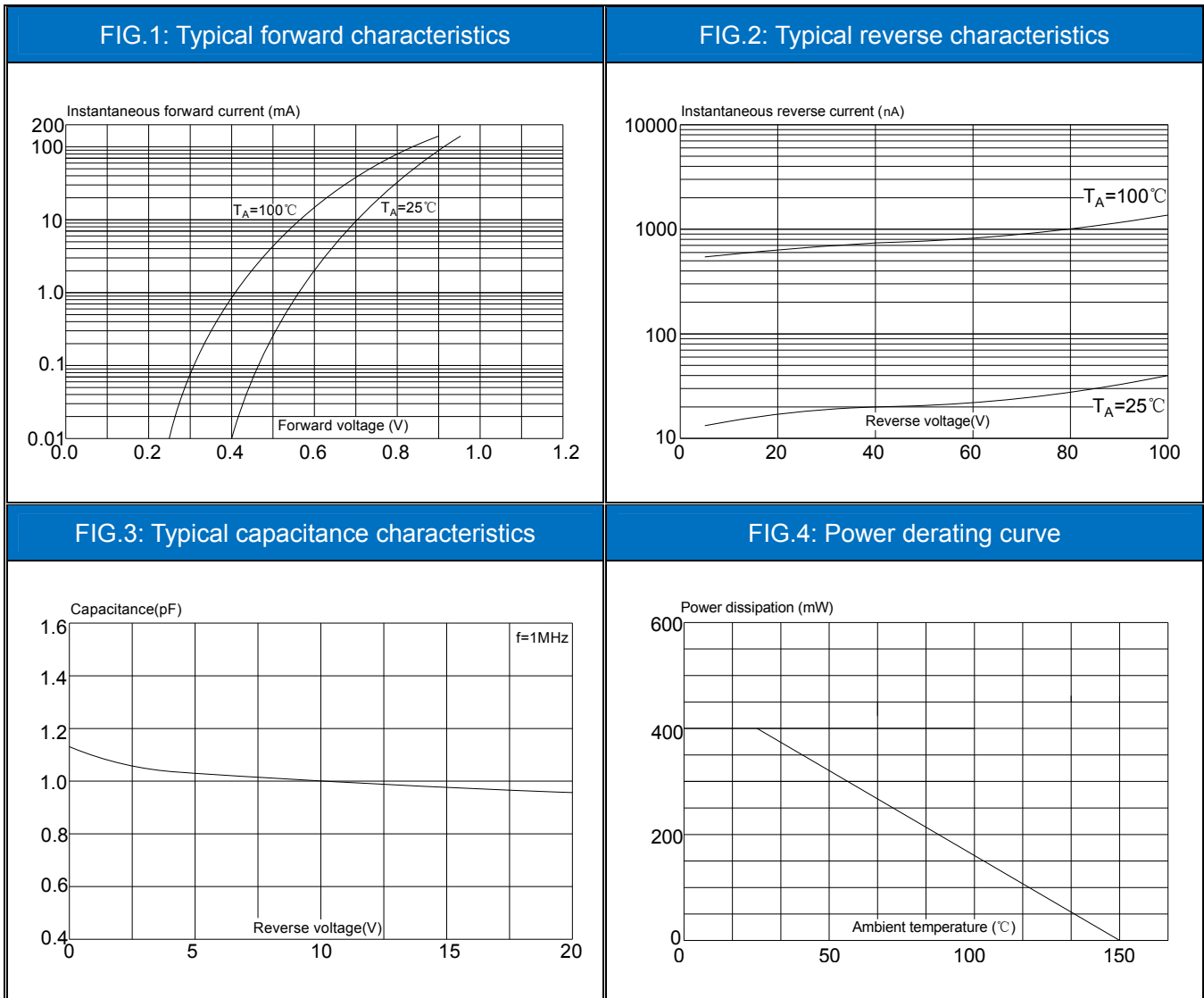
**ORDERING INFORMATION**

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

**MARKING CODE**

Part Number	Marking Code
1N4148W	

**CHARACTERISTICS CURVE**




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