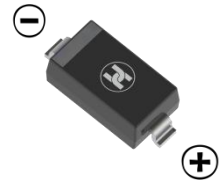


## SCHOTTKY BARRIER DIODE

### FEATURES

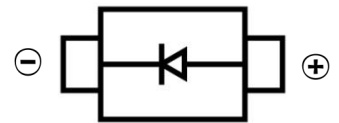
- Small Surface Mount device
- Low power loss, high efficiency
- Guardring for over voltage protection
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



SOD-123

### MECHANICAL DATA

- Case: SOD-123
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.0053 grams (approximate)



### MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	SS22W	SS23W	SS24W	SS25W	SS26W	SS28W	SS210W	SS215W	SS220W	Unit
Repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	V
DC Reverse Voltage	$V_R$	20	30	40	50	60	80	100	150	200	V
RMS Reverse Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	V
Non-Repetitive Peak Forward Surge Current @ $t = 8.3 \text{ ms}$	$I_{FSM}$	50									A
Mean rectifying current	$I_F$	2.0									A
Thermal Resistance	$R_{\theta JA}$	85									$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	-55~+150									$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-65 ~+175									$^\circ\text{C}$

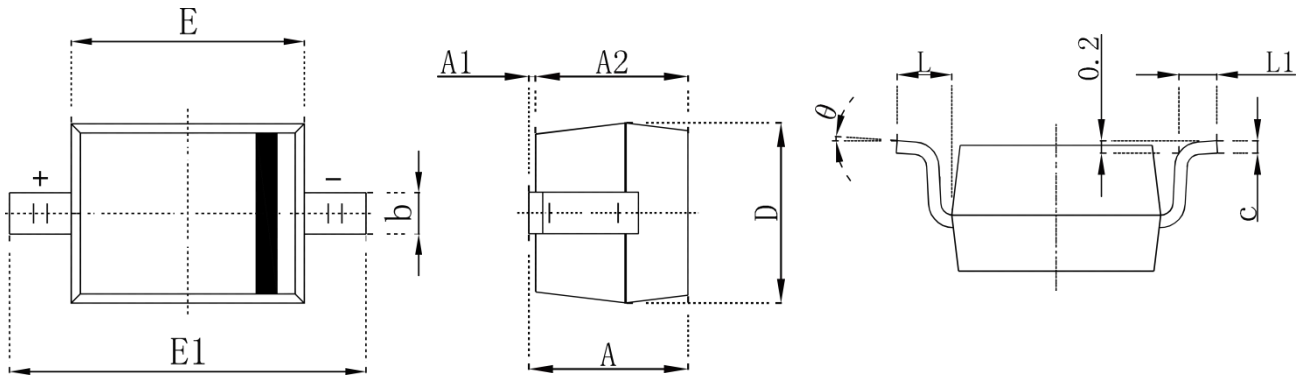
### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	SS22W	SS23W	SS24W	SS25W	SS26W	SS28W	SS210W	SS215W	SS220W	Unit	Conditions
Forward voltage	$V_F$	0.50		0.70		0.85		0.9	0.92	V	$I_F=2\text{A}$	
Reverse current $T_A=25^\circ\text{C}$	$I_R$	0.5									mA	$V=V_R$
Reverse current $T_J=100^\circ\text{C}$	$I_R$	20									mA	
Junction capacitance	$C_J$	160									pF	$V=4\text{V}, f=1\text{MHz}$

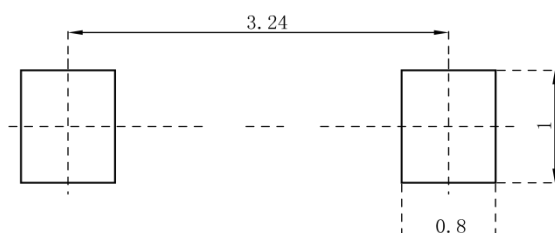
NOTES:1.  $8.0\text{mm}^2$  (.013mm thick) land areas

SCHOTTKY BARRIER DIODE

**Typical Characteristics**

**SCHOTTKY BARRIER DIODE**
**SOD-123 Package Outline Dimensions**


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
$\theta$	0°	8°	0°	8°

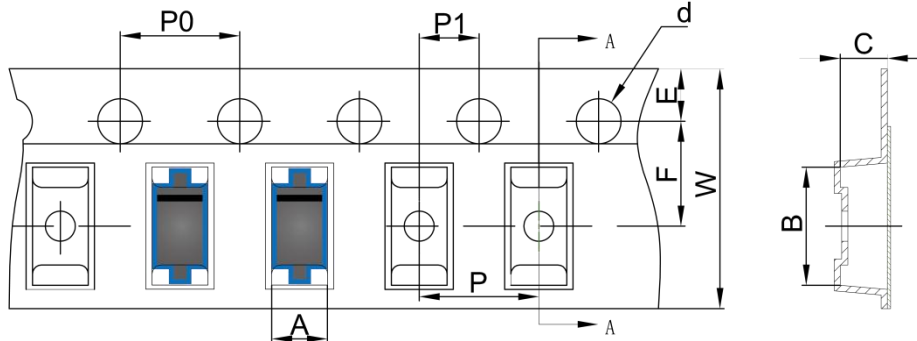
**SOD-123 Suggested Pad Layout**

**Note:**

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

SCHOTTKY BARRIER DIODE

**SOD-123 Tape and Reel**

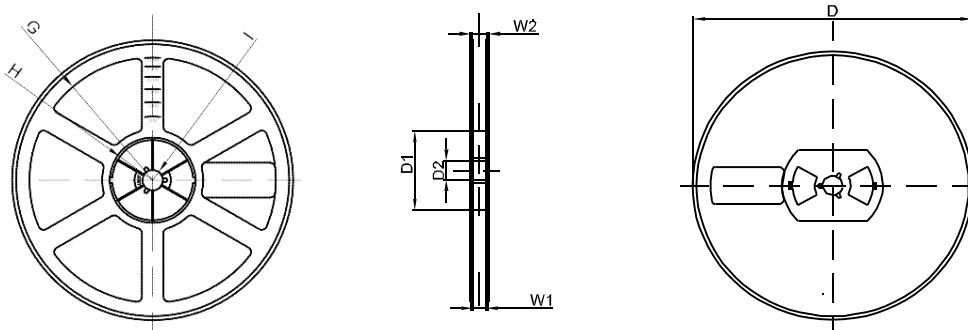
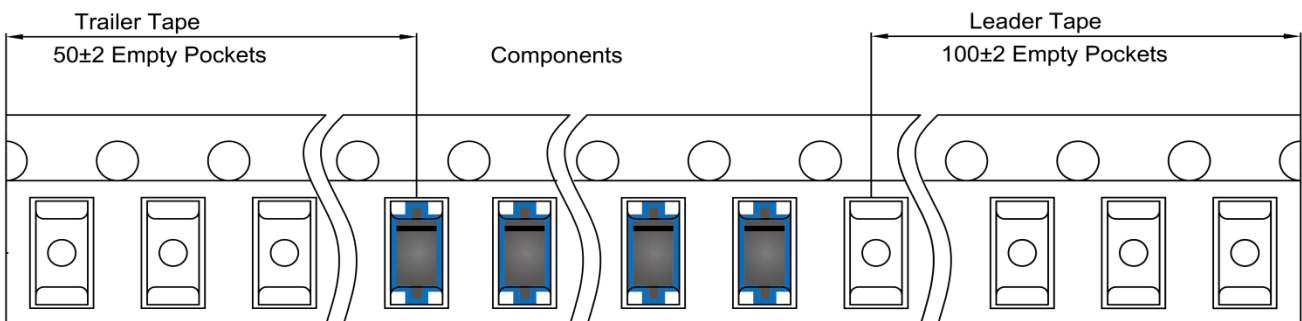
**SOD-123 Embossed Carrier Tape**



**SOD-123 Tape Leader and Trailer**

DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOD-123	1.85	3.95	1.57	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

**SOD-123 Reel**



DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	9.50	12.30
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1