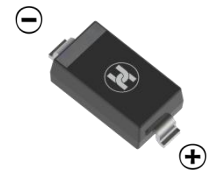
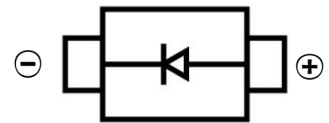


**SCHOTTKY BARRIER DIODE**
**FEATURES**

- Low Forward Voltage
- High frequency inverters
- Small Surface Mount device
- PN Junction Guard Ring for Transient and ESD Protection
- Low Capacitance


**SOD-123**
**MECHANICAL DATA**

- Case: SOD-123
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.005 grams (approximate)


**MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise noted)**

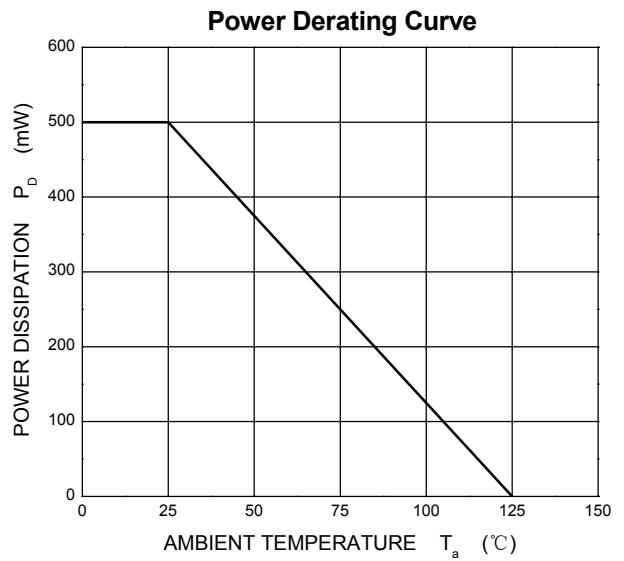
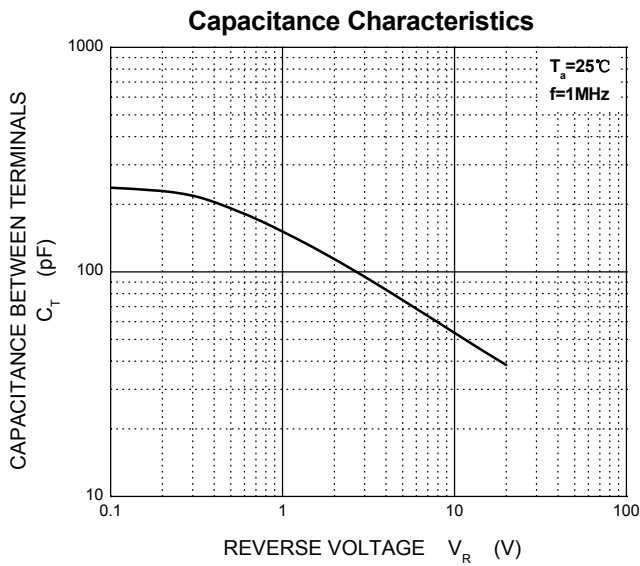
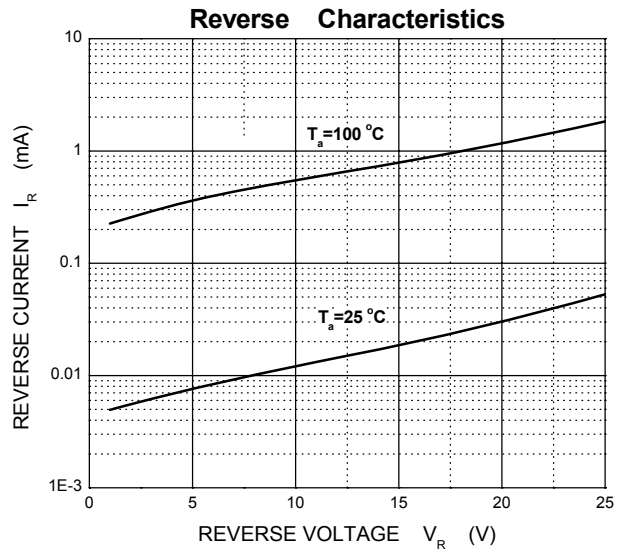
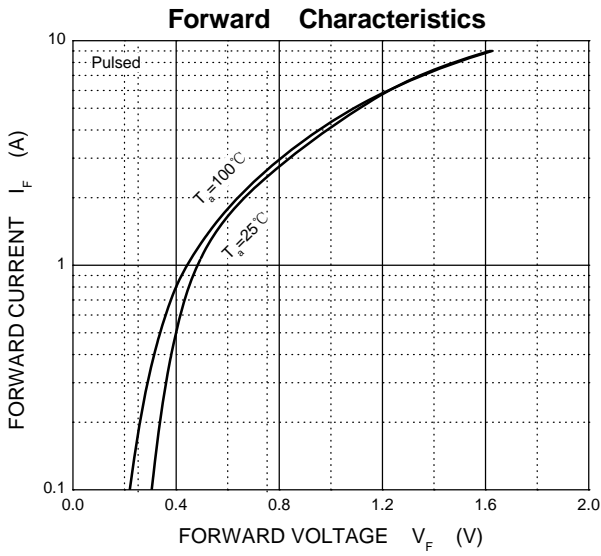
Parameter	Symbol	B5817W	B5818W	B5819W	Unit
Peak Reverse Voltage	V <sub>R</sub>	20	30	40	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	14	21	28	V
Forward Current	I <sub>F</sub>	1			A
Non-Repetitive Peak Forward Surge Current@ t = 8.3 ms	I <sub>FSM</sub>	9			A
Power Dissipation	P <sub>D</sub>	500			mW
Thermal Resistance From Junction To Ambient	R <sub>θJA</sub>	200			°C/W
Junction Temperature	T <sub>J</sub>	125			°C
Storage Temperature	T <sub>STG</sub>	-55 ~+150			°C

**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	B5817W	B5818W	B5819W	Unit
Maximum forward voltage	V <sub>F</sub>	I <sub>F</sub> = 1.0A I <sub>F</sub> = 3.0A	0.450 0.750	0.550 0.875	0.600 0.900	V
Maximum reverse breakdown voltage	V <sub>R</sub>	I <sub>R</sub> =1mA	20	30	40	V
Maximum reverse current	I <sub>R</sub>	V <sub>R</sub> =20V B5817W V <sub>R</sub> =30V B5818W V <sub>R</sub> =40V B5819W	1.0			mA
Type junction capacitance	C <sub>D</sub>	V <sub>R</sub> = 4.0V, f = 1MHz	120			pF

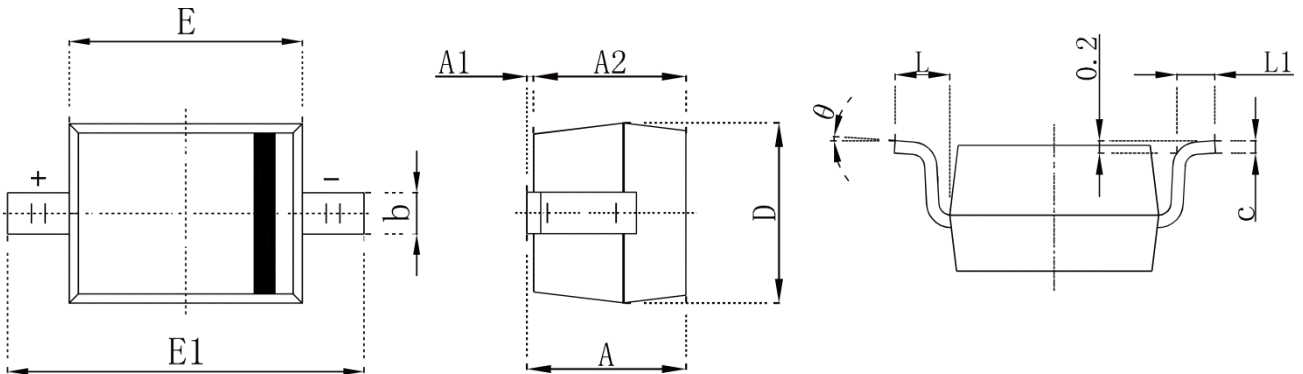
SCHOTTKY BARRIER DIODE

Typical Characteristics



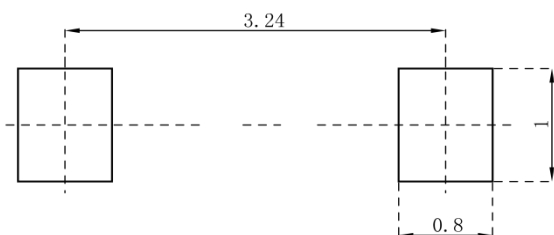
**SCHOTTKY BARRIER DIODE**

**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	0.500REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
$\theta$	0°	8°	0°	8°

**SOD-123 Suggested Pad Layout**



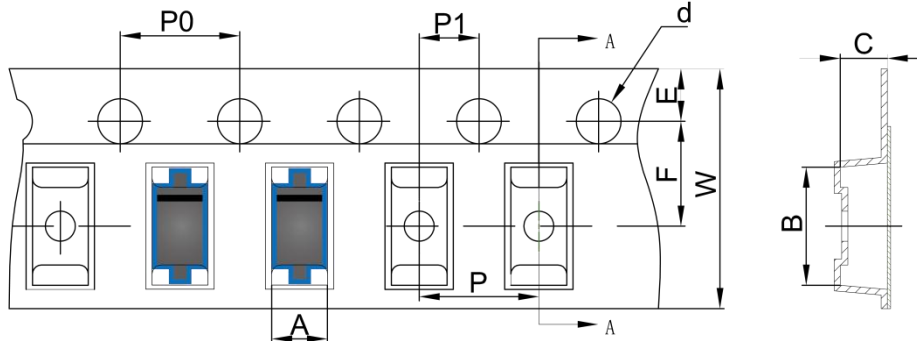
**Note:**

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**

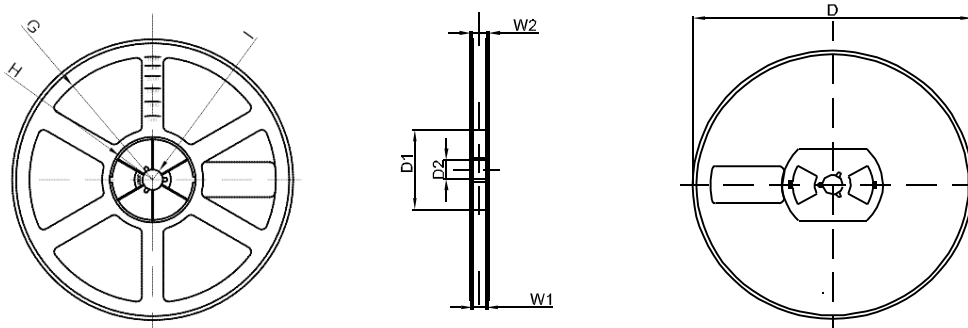
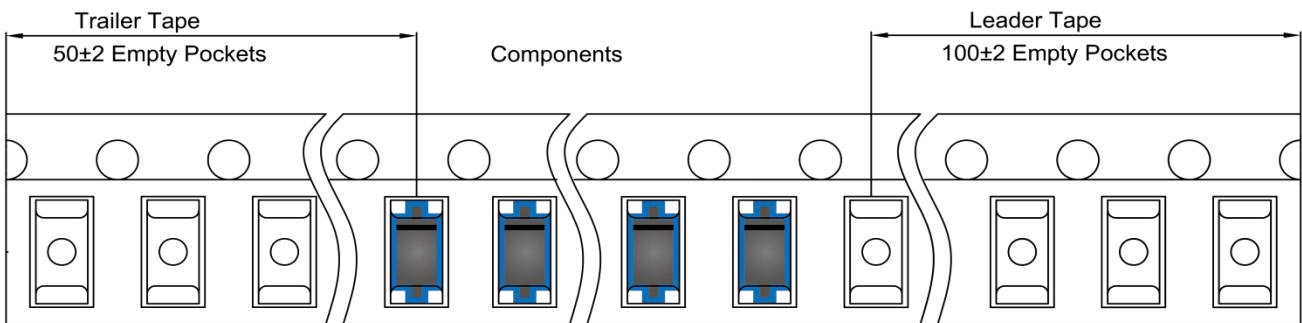
**SOD-123 Embossed Carrier Tape**



**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