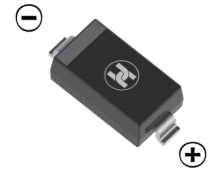
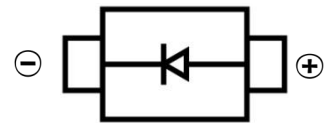


**SCHOTTKY BARRIER DIODE**
**FEATURES**

- Low Forward Voltage
- High frequency inverters
- Small Surface Mount device
- Guard Ring for Stress Protection


**SOD-123**

**MECHANICAL DATA**

- Case: SOD-123
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.005 grams (approximate)
- Marking: B2M

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

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V <sub>R</sub>	20	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	20	V
Forward Current	I <sub>F</sub>	0.5	A
Non-Repetitive Peak Forward Surge Current@t =8.3ms	I <sub>FSM</sub>	5.5	A
Power Dissipation	P <sub>D</sub>	500	mW
Thermal Resistance From Junction To Ambient	R <sub>θJA</sub>	340	°C/W
Thermal Resistance From Junction To Lead	R <sub>θJL</sub>	150	°C/W
Junction Temperature	T <sub>J</sub>	110	°C
Storage Temperature	T <sub>STG</sub>	-55 ~+150	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V <sub>F</sub>			0.35	V	I <sub>F</sub> =0.1A
			0.43	0.45		I <sub>F</sub> =0.5A
Reverse voltage	V <sub>R</sub>	20			V	I <sub>R</sub> =100uA
Reverse voltage leakage current	I <sub>R</sub>		30	100	μA	V <sub>R</sub> =20V, T <sub>C</sub> =25°C

SCHOTTKY BARRIER DIODE

Typical Characteristics

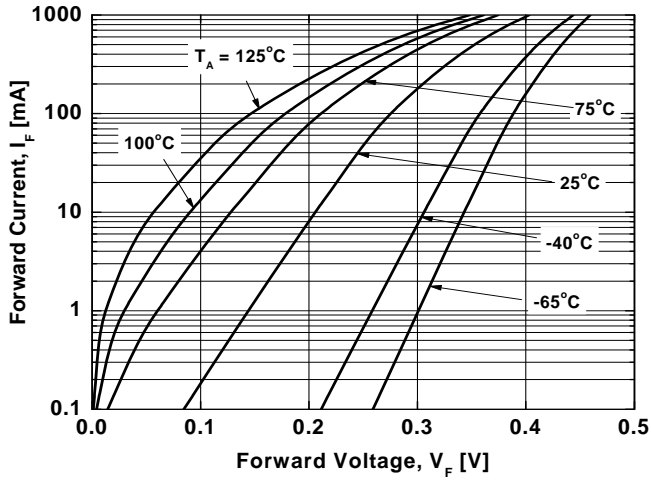


Figure 1. Forward Current vs. Forward Voltage

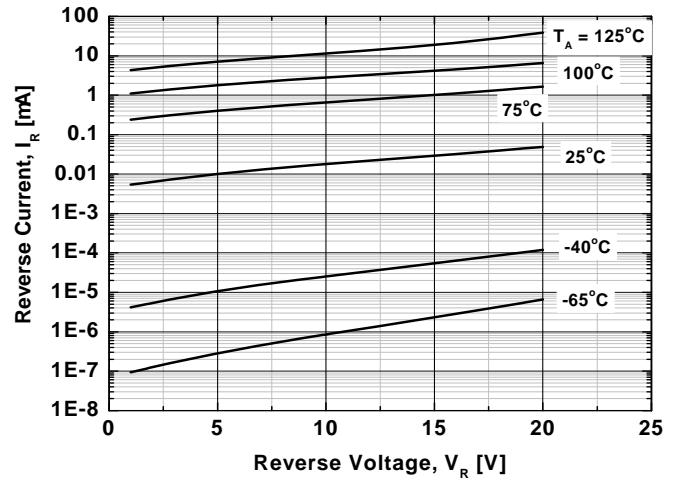


Figure 2. Reverse Current vs. Reverse Voltage

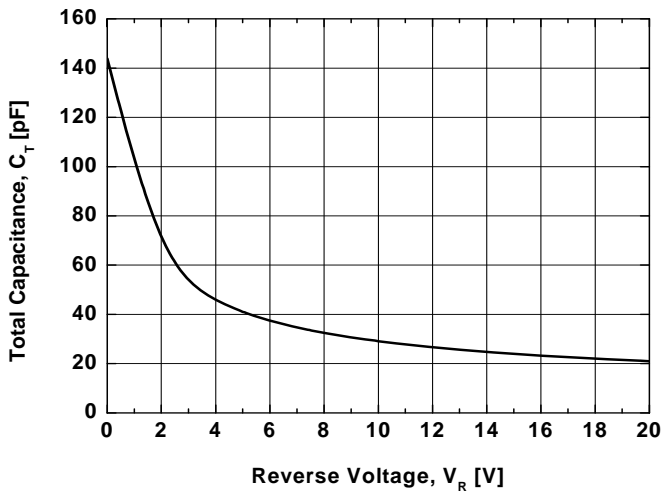
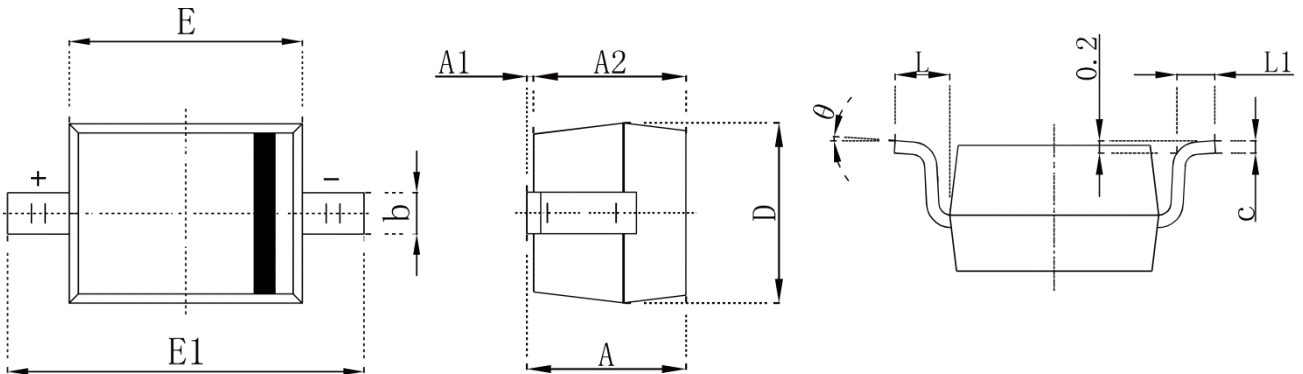
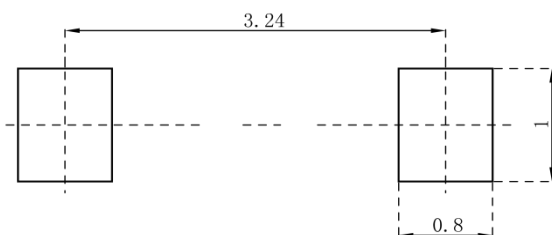


Figure 3. Total Capacitance

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


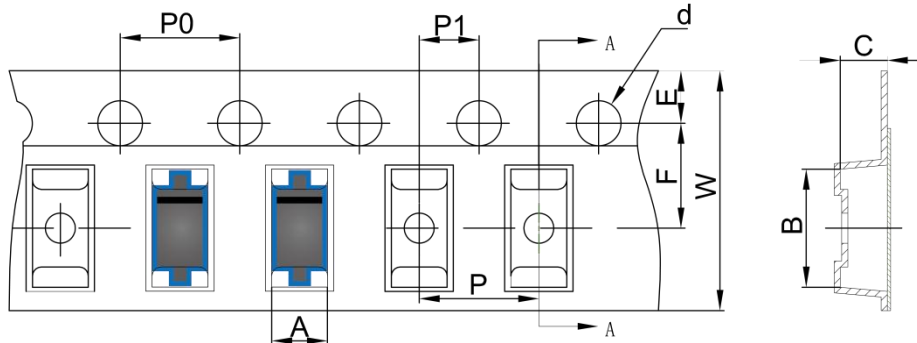
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500REF		0.020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

## SOD-123 Tape and Reel

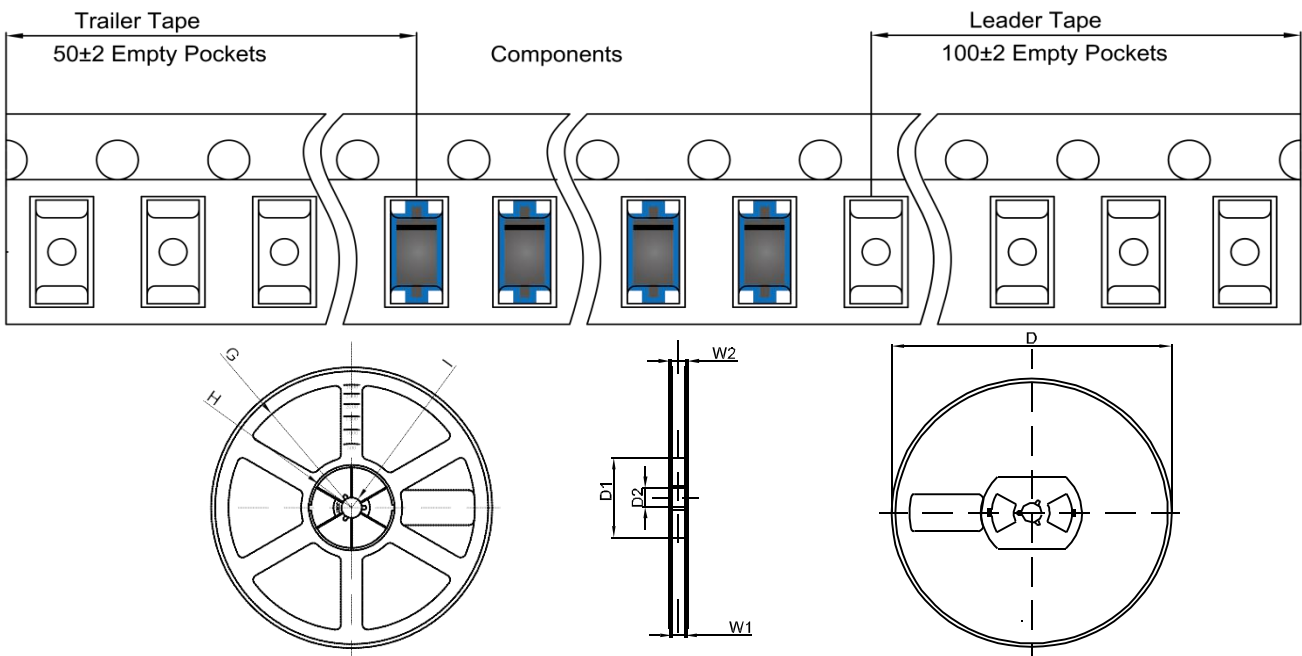
### SOD-123 Embossed Carrier Tape



### 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