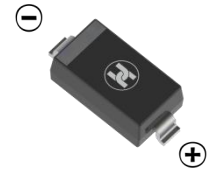
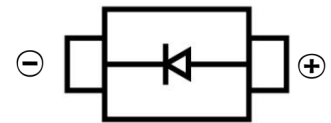


SCHOTTKY BARRIER DIODE
FEATURES

- 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)


MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V _R	30	V
RMS Reverse Voltage	V _{R(RMS)}	30	V
Forward Current	I _F	1	A
Non-Repetitive Peak Forward Surge Current@t =8.3ms	I _{FSM}	5.5	A
Power Dissipation	P _D	500	mW
Thermal Resistance From Junction To Ambient	R _{θJA}	230	°C/W
Thermal Resistance From Junction To Lead	R _{θJL}	108	°C/W
Junction Temperature	T _J	125	°C
Storage Temperature	T _{STG}	-55 ~+150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V _F			0.35	V	I _F =0.1A
				0.45		I _F =0.5A
Reverse voltage	V _R	30			V	I _R =0.5mA
Reverse voltage leakage current	I _R			60	μA	V _R =30V, T _C =25°C
				10		V _R =5V, T _C =25°C

SCHOTTKY BARRIER DIODE

Typical Characteristics

Figure 1. Maximum Forward Voltage

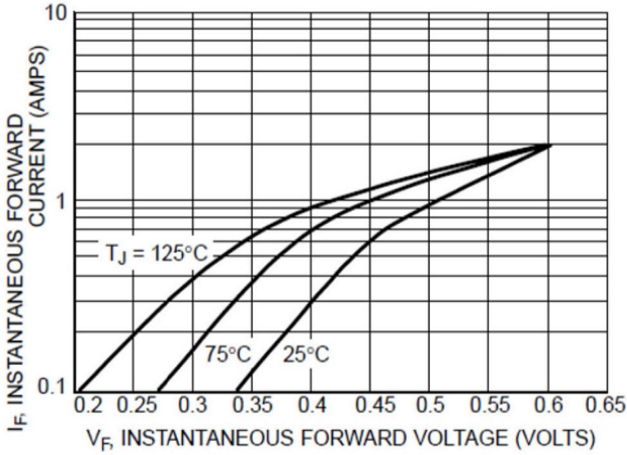


Figure 2. Typical Forward Voltage

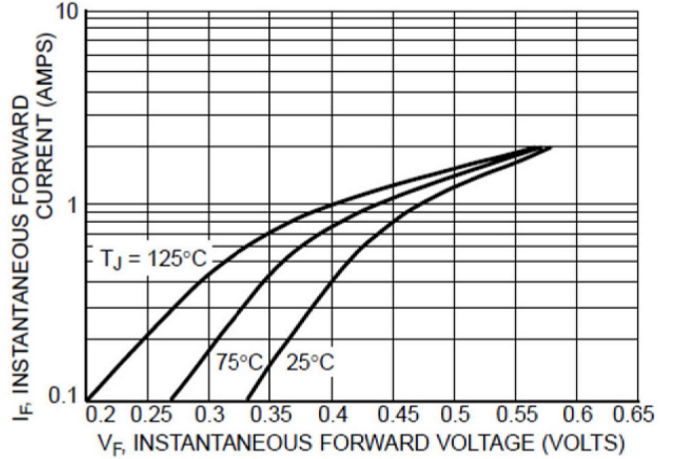


Figure 3. Typical Reverse Current

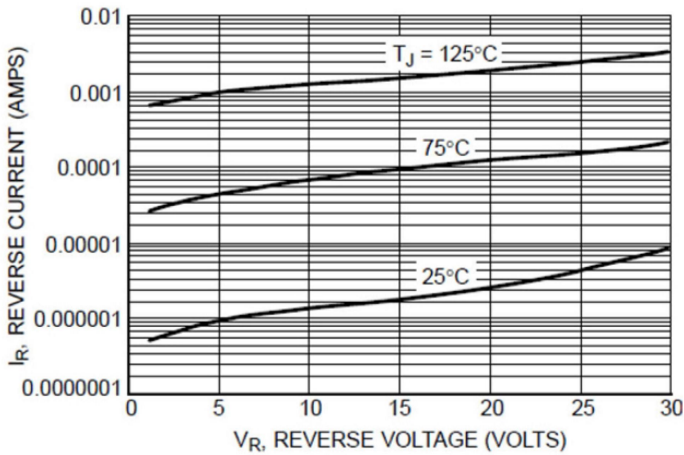


Figure 4. Typical Capacitance

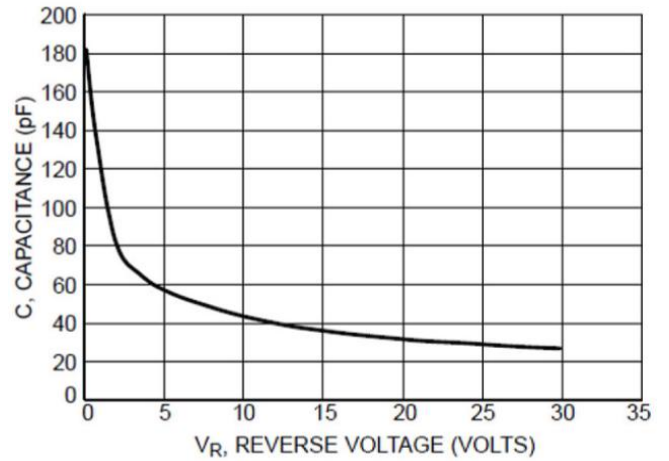


Figure 5. Current Derating, Lead, $R_{\theta JL} = 108^\circ\text{C/W}$

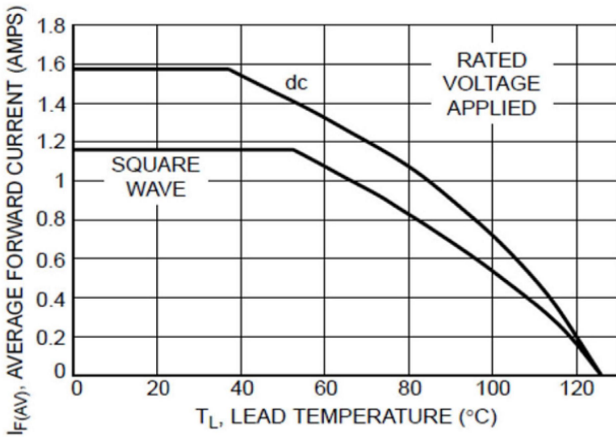
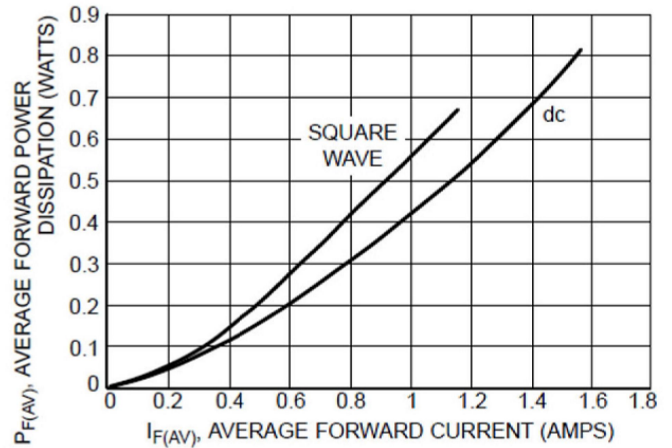
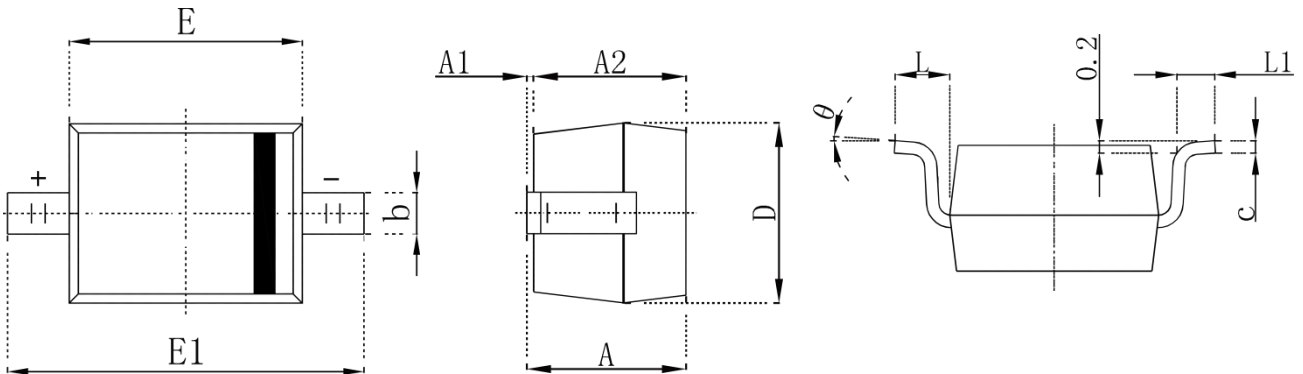
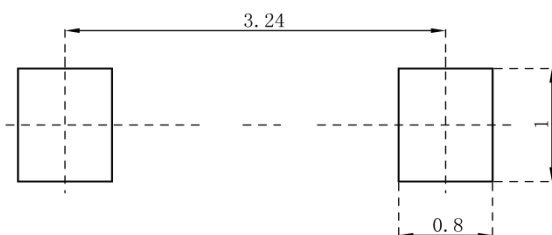


Figure 6. Forward Power Dissipation



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°

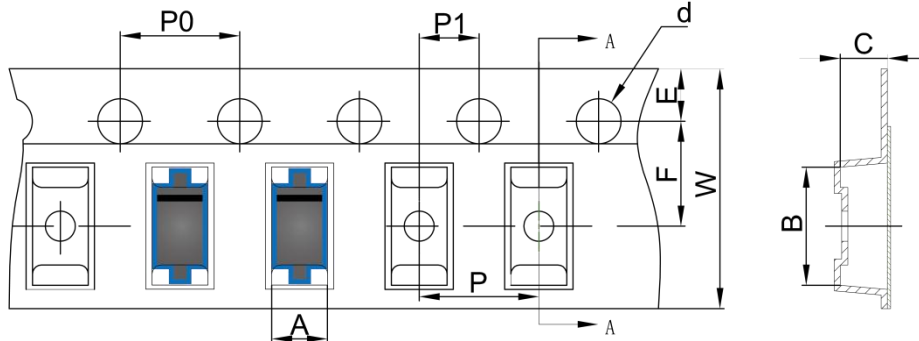
SOD-123 Suggested Pad Layout

Note:

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

SCHOTTKY BARRIER DIODE

SOD-123 Tape and Reel

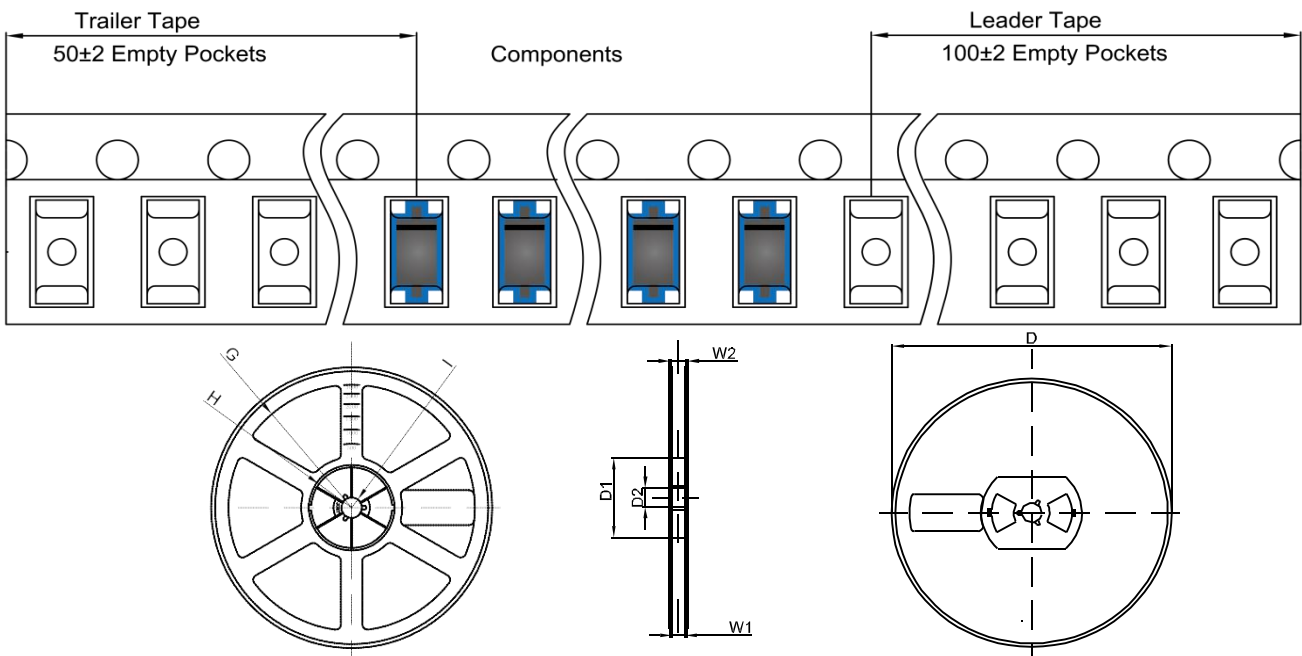
SOD-123 Embossed Carrier Tape



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

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