Lastinght

MBR0520

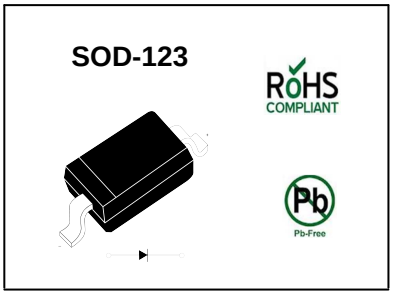
Surface Mount Schottky Barrier Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Features

- Very low forward voltage
- High Current Capability



Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RRM}	20	V
Working Peak Reverse Voltage	V_{RWM}	20	V
DC Reverse Voltage	V_R	20	V
Average Rectified Forward Current	$I_{F(AV)}$	0.5	A
Non-Repetitive Peak Forward Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	I_{FSM}	5.5	A
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	340	°C/W
Thermal Resistance Junction to Lead	$R_{\theta JL}$	150	°C/W
Junction Temperature	T_j	- 65 to + 150	°C
Storage Temperature	T_{stg}	- 65 to + 150	°C

1) Following any rated load condition and with rated V_{RRM} applied.

Characteristics at T_a = 25 °C

Parameter	Symbol	Max.	Unit
Forward Voltage at I_F = 0.1 A, T_j = 25 °C at I_F = 0.5 A, T_j = 25 °C at I_F = 0.1 A, T_j = 100 °C at I_F = 0.5 A, T_j = 100 °C	V_F	 0.375 0.44 0.26 0.36	V
Reverse Current at V_R = 10 V, T_j = 25 °C at V_R = 20 V, T_j = 25 °C at V_R = 10 V, T_j = 100 °C at V_R = 20 V, T_j = 100 °C	I_R	 40 150 3 7	 µA µA mA mA
Total Capacitance at V_R = 5 V (test signal range 100 KHz to 1 MHz), T_j = 25 °C	C_{tot}	110	pF

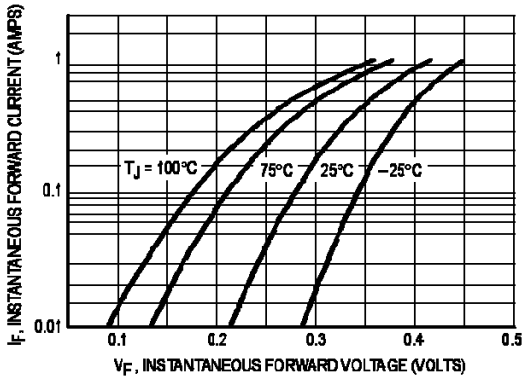


Figure 1. Typical Forward Voltage

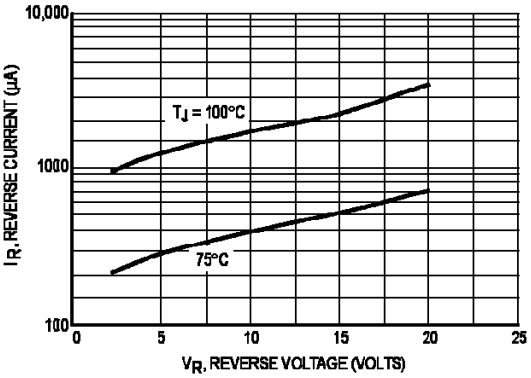


Figure 2. Typical Reverse Current

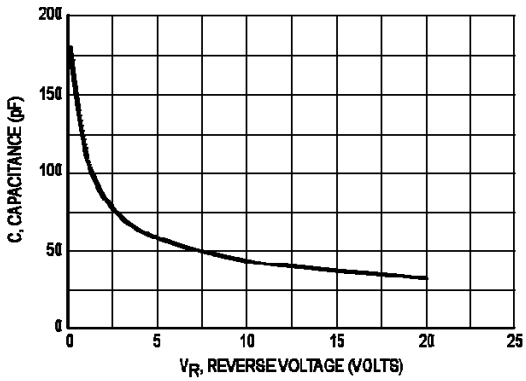


Figure 3. Typical Capacitance

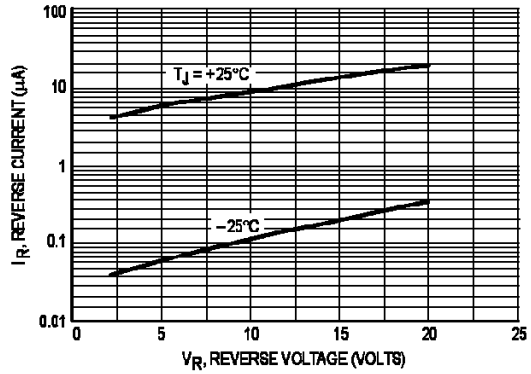
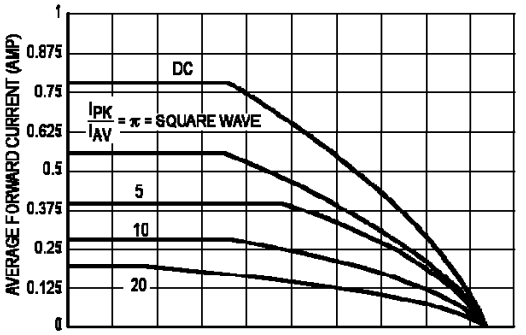
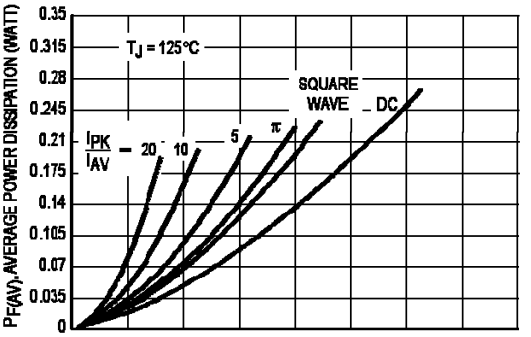


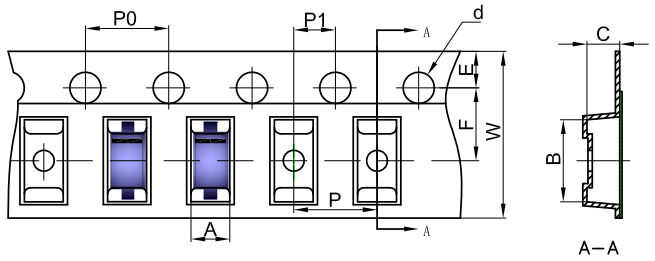
Figure 4. Typical Reverse Current





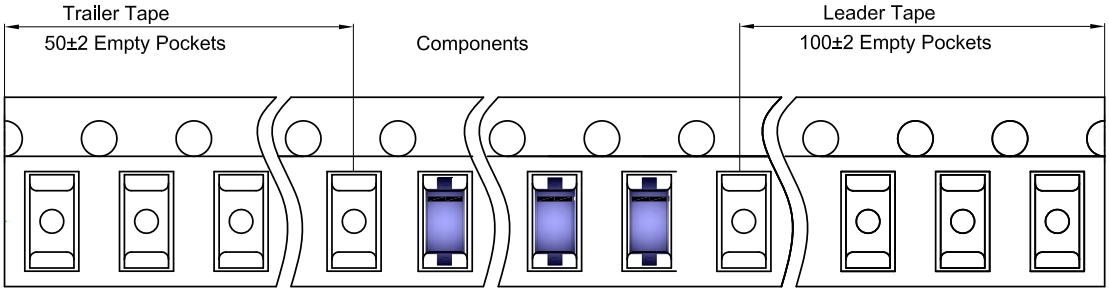
SOD-123 Tape and Reel

SOD-123 Embossed Carrier Tape

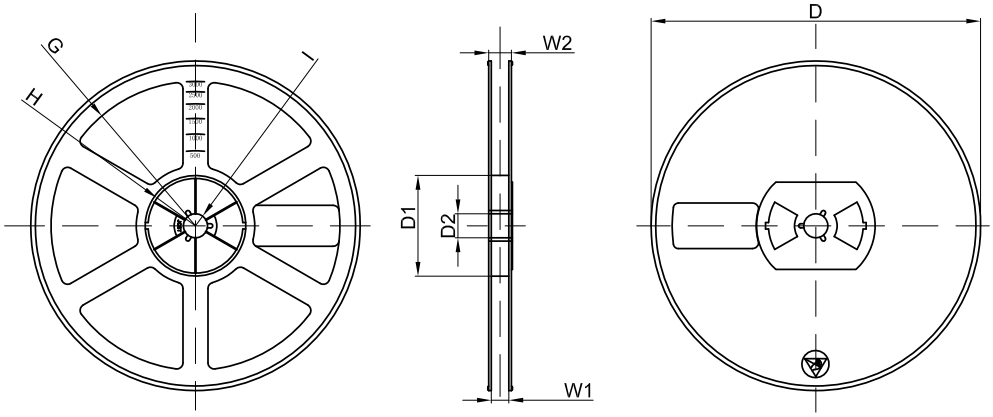


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-123	1.85	3.95	1.57	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOD-123 Tape Leader and Trailer

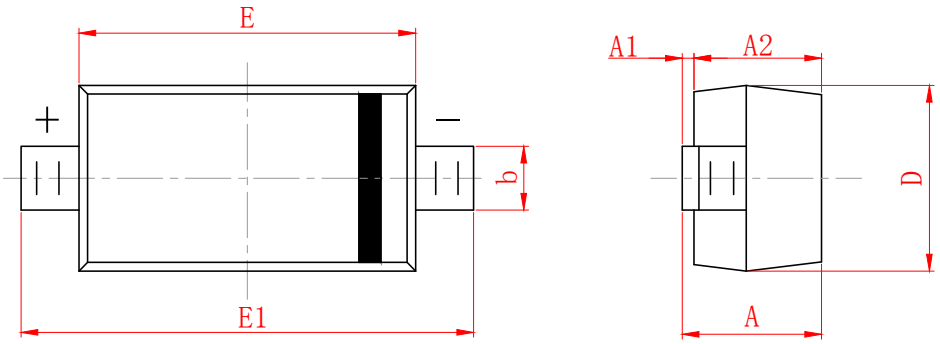


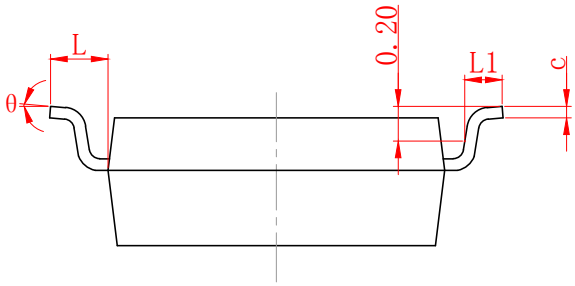
SOD-123 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	





SYMBOL	MILLIMETER	
	MIN	MAX
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.008	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500(REF)	
L1	0.250	0.450
θ	0°	8°

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