Lastinght

1N60PW THRU 1N60SW

Schottky Barrier Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

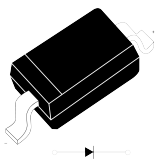
FEATURES

- High reliability
- Low forward voltage and reverse current

APPLICATIONS

- For electronic calculator, etc.
- Low current rectification and high speed switching

SOD-123



RoHS COMPLIANT

Pb Pb-Free

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	45	V
Reverse Voltage	V_R	10	V
Peak Forward Current	I_{FM}	150	mA
Average Rectified Output Current	I_O	50	mA
Surge Forward Current	I_{surge}	500	mA
Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{Stg}	-55 to +125	°C

Characteristics (T_a = 25 °C)

Parameter		Symbol	Min.	Max.	Unit
Forward Current at V_F = 1 V		I_F	4	-	mA
Reverse Current at V_R = 10 V	1N60PW 1N60SW	I_R	- -	50 100	μA
Reverse Voltage at I_R = 100 μA		V	45	-	V
Junction Capacitance at f = 1 MHz, V = -1 V		C_J	-	1	pF
Rectification efficiency at Vi = 2 Vrms, R_R = 5 KΩ, C = 20 pF, f = 40 MHz		η	55	-	%

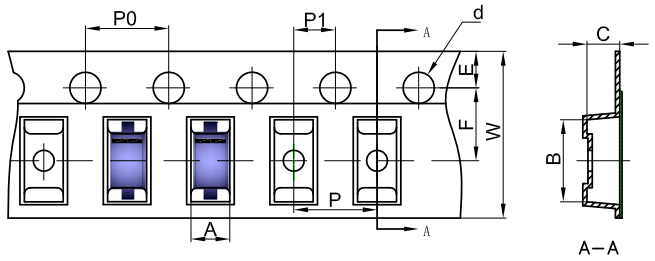
Pair Δ I ≤ 6 mA at 1V, Δ I ≤ 20 μA at 10 V

Characteristics at T_a = 25 °C

Parameter		Symbol	Min.	Max.	Unit
DC Current Gain					
at $-I_C$ = 0.1 mA, $-V_{CE}$ = 10 V	2N2907U	h_{FE}	35	-	-
	2N2907AU	h_{FE}	75	-	-
at $-I_C$ = 1 mA, $-V_{CE}$ = 10 V	2N2907U	h_{FE}	50	-	-
	2N2907AU	h_{FE}	100	-	-
at $-I_C$ = 10 mA, $-V_{CE}$ = 10 V	2N2907U	h_{FE}	75	-	-
	2N2907AU	h_{FE}	100	-	-
at $-I_C$ = 150 mA, $-V_{CE}$ = 10 V		h_{FE}	100	300	-
at $-I_C$ = 500 mA, $-V_{CE}$ = 10 V	2N2907U	h_{FE}	30	-	-
	2N2907AU	h_{FE}	50	-	-
Collector Base Cutoff Current					
at $-V_{CB}$ = 50 V	2N2907U	$-I_{CBO}$	-	20	nA
	2N2907AU	$-I_{CBO}$	-	10	nA
Collector Base Breakdown Voltage at $-I_C$ = 10 µA		$-V_{(BR)CBO}$	60	-	V
Collector Emitter Breakdown Voltage					
at $-I_C$ = 10 mA	2N2907U	$-V_{(BR)CEO}$	40	-	V
	2N2907AU	$-V_{(BR)CEO}$	60	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 10 µA		$-V_{(BR)EBO}$	5	-	V
Collector Saturation Voltage					
at $-I_C$ = 150 mA, $-I_B$ = 15 mA		$-V_{CE(sat)}$	-	0.4	V
at $-I_C$ = 500 mA, $-I_B$ = 50 mA		$-V_{CE(sat)}$	-	1.6	V
Base Saturation Voltage					
at $-I_C$ = 150 mA, $-I_B$ = 15 mA		$-V_{BE(sat)}$	-	1.3	V
at $-I_C$ = 500 mA, $-I_B$ = 50 mA		$-V_{BE(sat)}$	-	2.6	V
Gain Bandwidth Product at $-I_C$ = 50 mA , $-V_{CE}$ = 20 V, f = 100 MHz		f_T	200	-	MHz
Collector Output Capacitance at $-V_{CB}$ = 10 V, f = 1 MHz		C_{ob}	-	8	pF
Turn-on Time at $-V_{CC}$ = 30 V, $-I_C$ = 150 mA, $-I_{B1}$ = 15 mA		t_{on}	-	45	ns
Delay Time at $-V_{CC}$ = 30 V, $-I_C$ = 150 mA, $-I_{B1}$ = 15 mA		t_d	-	10	ns
Rise Time at $-V_{CC}$ = 30 V, $-I_C$ = 150 mA, $-I_{B1}$ = 15 mA		t_r	-	40	ns
Turn-off Time at $-V_{CC}$ = 6 V, $-I_C$ = 150 mA, $-I_{B1}$ = $-I_{B2}$ = 15 mA		t_{off}	-	100	ns
Storage Time at $-V_{CC}$ = 6 V, $-I_C$ = 150 mA, $-I_{B1}$ = $-I_{B2}$ = 15 mA		t_s	-	80	ns
Fall Time at $-V_{CC}$ = 6 V, $-I_C$ = 150 mA, $-I_{B1}$ = $-I_{B2}$ = 15 mA		t_f	-	30	ns

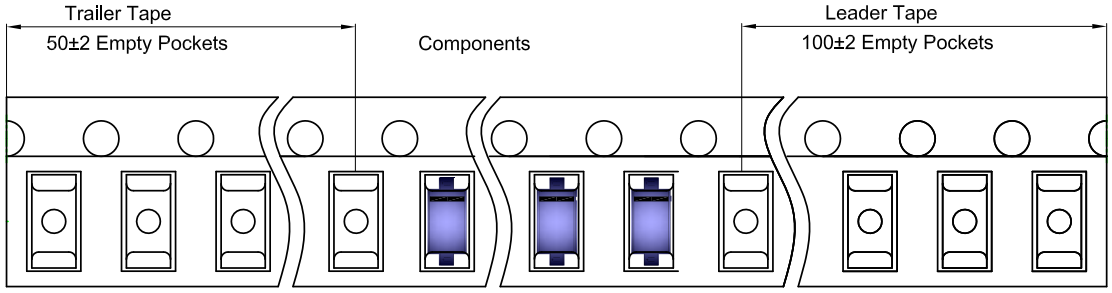
SOD-123 Tape and Reel

SOD-123 Embossed Carrier Tape

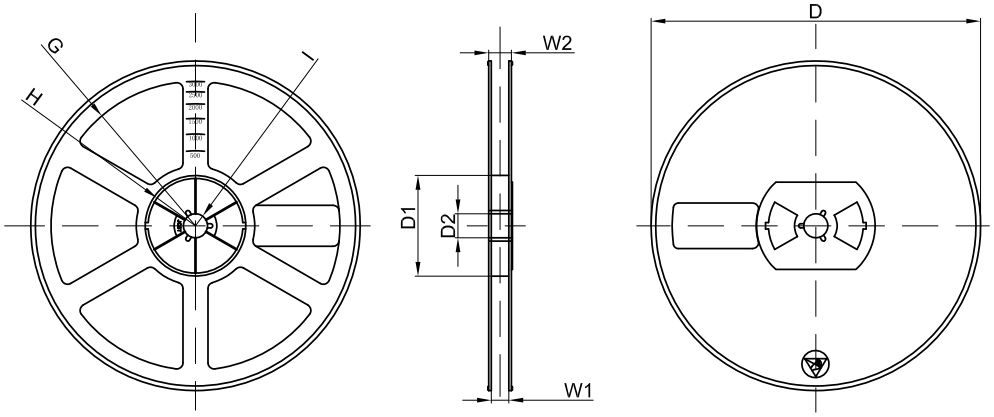


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-123	1.85	3.95	1.57	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOD-123 Tape Leader and Trailer

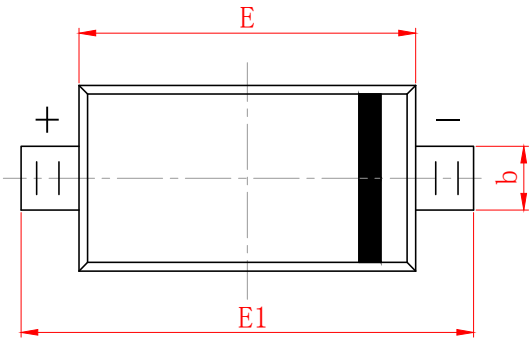


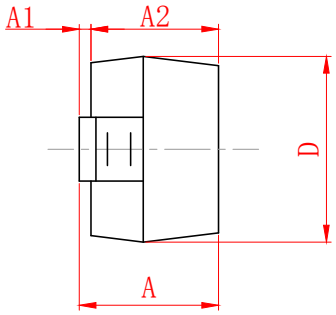
SOD-123 Reel

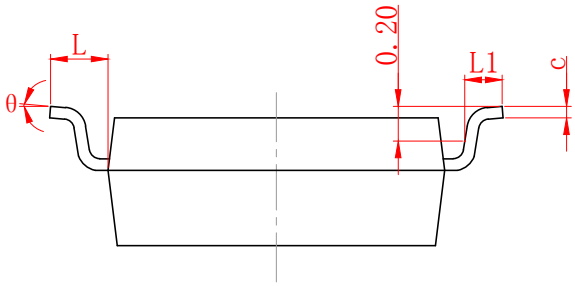


Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

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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