Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

SOT-23
1. BASE
2. EMITTER
3. COLLECTOR

FEATURES
- High Voltage Application
- Telephone Application
- Complementary to MMBTA43

MARKING: 2D
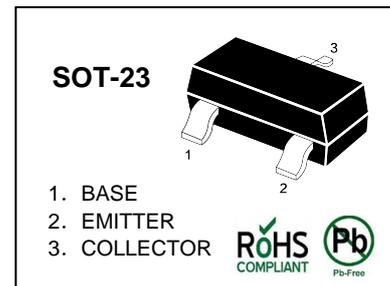
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

| Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-200	V
V_{CEO}	Collector-Emitter Voltage	-200	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-500	mA
P_C	Collector Power Dissipation	350	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	357	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55～+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

| Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA, I_E=0	-200			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-200			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-200V, I_E=0			-0.25	μA
Collector cut-off current	I_{CEO}	V_{CE}=-200V, I_B=0			-0.25	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V, I_C=0			-0.1	μA
DC current gain	$h_{FE(1)}$*	V_{CE}=-10V, I_C=-10mA	40			
	$h_{FE(2}$*$_)$	V_{CE}=-10V, I_C=-1mA	25			
	$h_{FE(3)}$*	V_{CE}=-10V, I_C=-30mA	25			
Collector-emitter saturation voltage	$V_{CE(sat)}$*	I_C=-20mA, I_B=-2mA			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$*	I_C=-20mA, I_B=-2mA			-0.9	V
Transition frequency	f_T	V_{CE}=-20V,I_C=-10mA, f=100MHz	50			MHz
Collector output capacitance	C_{ob}	V_{CB}=-20V, I_E=0, f=1MHz			8	pF

*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

SOT-23 Tape and Reel

SOT-23 Embossed Carrier Tape
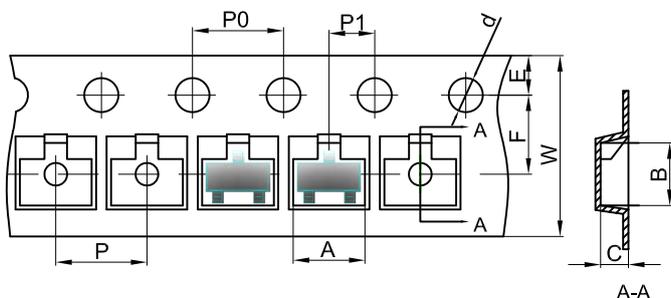
| Dimensions are in millimeter									
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-23 Tape Leader and Trailer

Trailer Tape	Components	Leader Tape
50±2 Empty Pockets		100±2 Empty Pockets
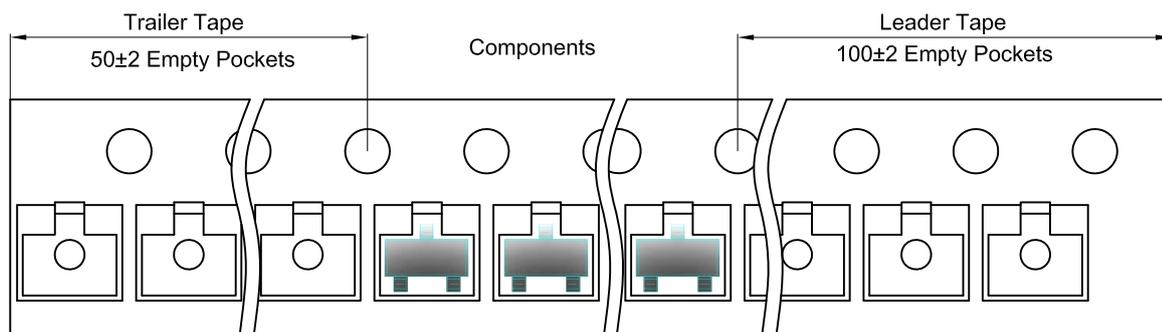
SOT-23 Reel
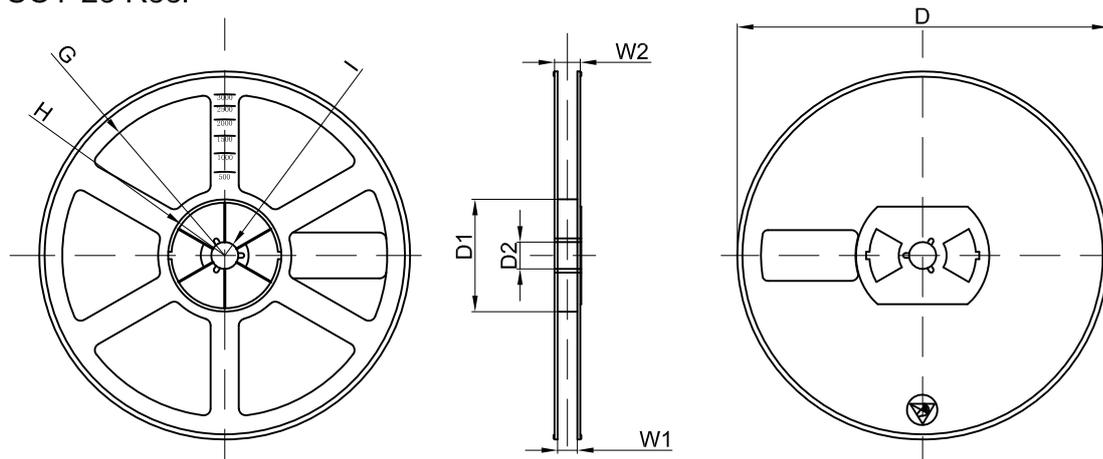
Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

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	

Lastinght
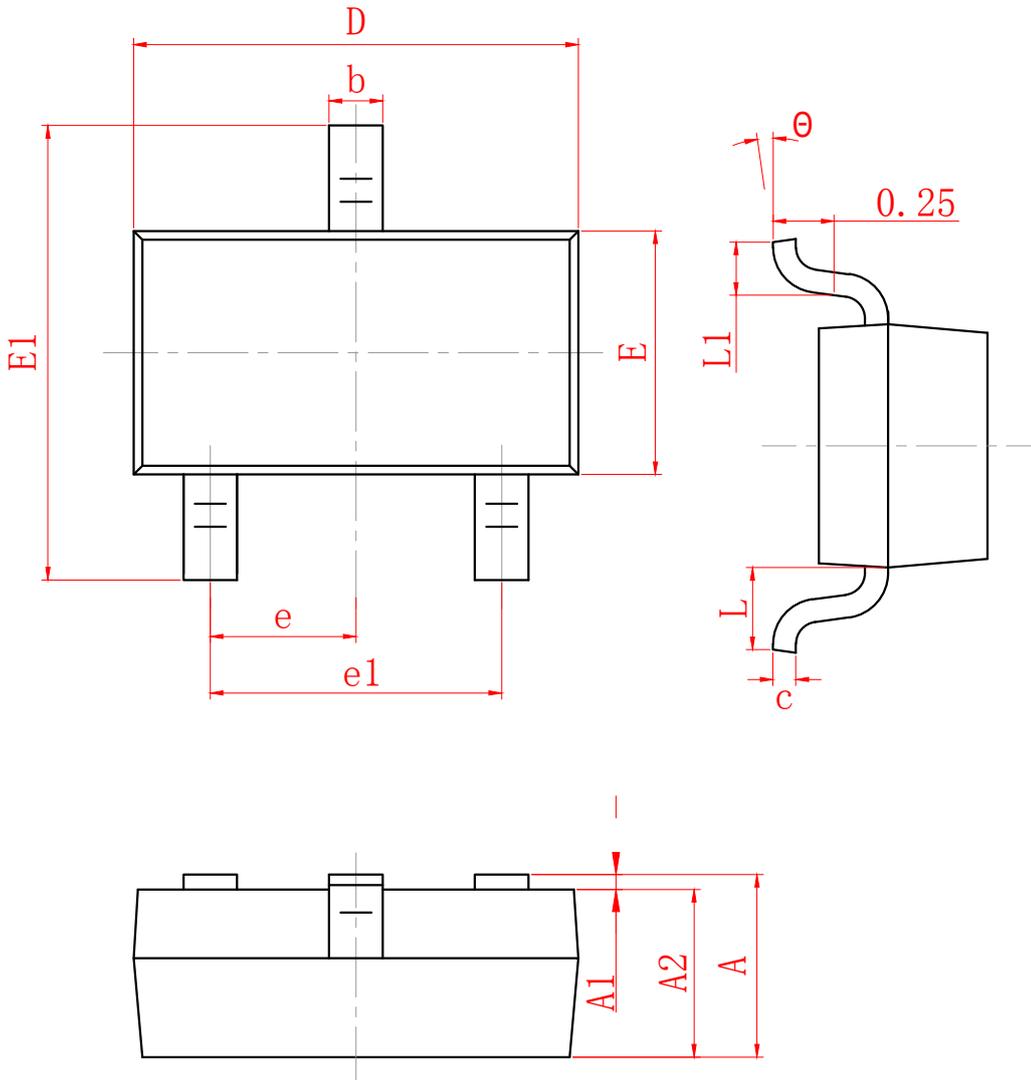
SYMBOL	MILLIMETER	
	MIN	MAX
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950 TYP	
e1	1.800	2.000
L	0.550 REF	
L1	0.300	0.500
θ	0°	8°

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