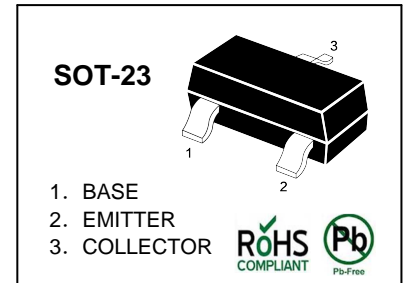


### NPN Silicon Epitaxial Planar Transistor

for switching and amplifier applications. Especially suitable for AF-driver stages and low power output stages.

The transistor is subdivided into one group, according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.



### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

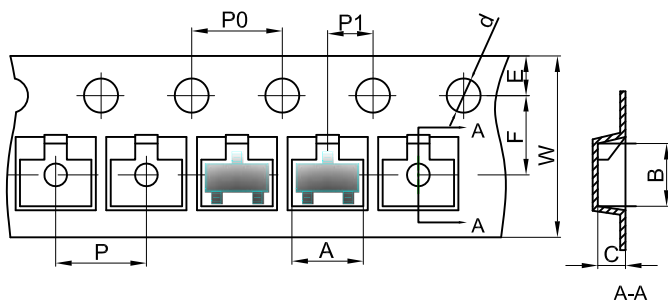
Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	40	V
Collector Emitter Voltage	$V_{CEO}$	20	V
Emitter Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	1	A
Peak Collector Current	$I_{CM}$	1.25	A
Base Current	$I_B$	100	mA
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_S$	-55 to +150	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain				
at $V_{CE}=1\text{V}$ , $I_C=5\text{mA}$	$h_{FE}$	45	-	-
at $V_{CE}=1\text{V}$ , $I_C=100\text{mA}$	$h_{FE}$	200	1000	-
at $V_{CE}=1\text{V}$ , $I_C=800\text{mA}$	$h_{FE}$	40	-	-
Collector Base Breakdown Voltage				
at $I_C=100\mu\text{A}$	$V_{(BR)CBO}$	40	-	V
Collector Emitter Breakdown Voltage				
at $I_C=2\text{mA}$	$V_{(BR)CEO}$	20	-	V
Emitter Base Breakdown Voltage				
at $I_E=100\mu\text{A}$	$V_{(BR)EBO}$	6	-	V
Collector Cutoff Current				
at $V_{CB}=35\text{V}$	$I_{CBO}$	-	100	nA
Emitter Cutoff Current				
at $V_{BE}=6\text{V}$	$I_{EBO}$	-	100	nA
Collector Saturation Voltage				
at $I_C=600\text{mA}$ , $I_B=20\text{mA}$	$V_{CE(sat)}$	-	0.55	V
Base Saturation Voltage				
at $I_C=600\text{mA}$ , $I_B=20\text{mA}$	$V_{BE(sat)}$	-	1.2	V
Base Emitter Voltage				
at $I_C=10\text{mA}$ , $V_{CE}=1\text{V}$	$V_{BE}$	-	1.0	V
Gain Bandwidth Product				
at $V_{CE}=10\text{V}$ , $I_C=50\text{mA}$	$f_T$	100	-	MHz
Collector Base Capacitance				
at $V_{CB}=10\text{V}$ , $f=1\text{MHz}$	$C_{OB}$	-	9	pF

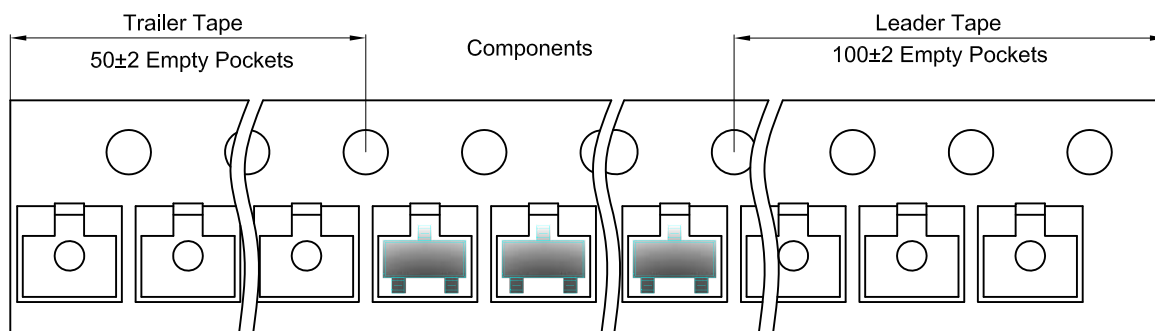
## SOT-23 Tape and Reel

### SOT-23 Embossed Carrier Tape

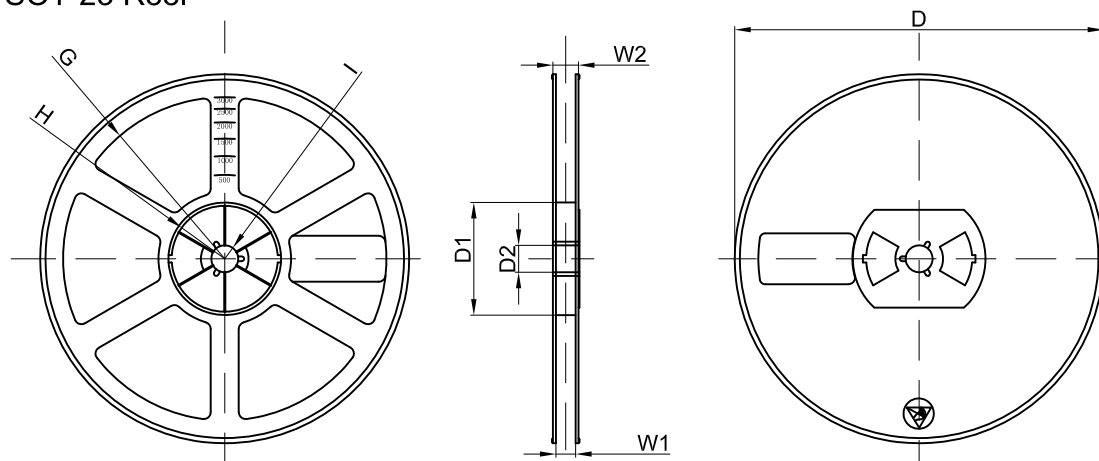


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

### SOT-23 Tape Leader and Trailer

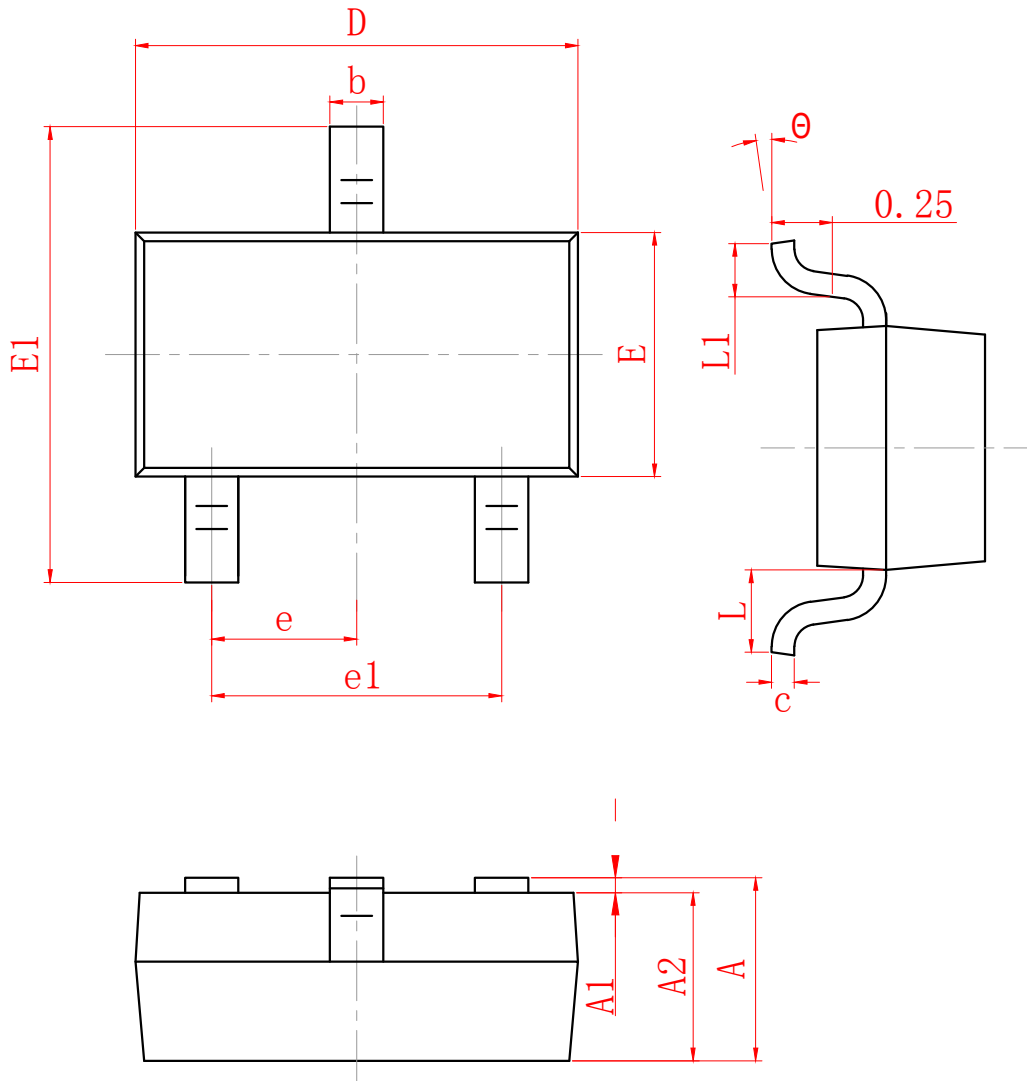


### SOT-23 Reel



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	



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
$\theta$	0°	8°

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