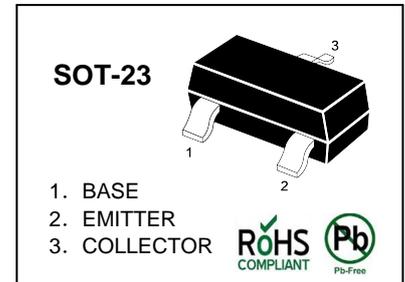


PNP Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into five groups R, O, Y, P and L, according to its DC current gain. As complementary type the NPN transistor MMBTSC945 is recommended.



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

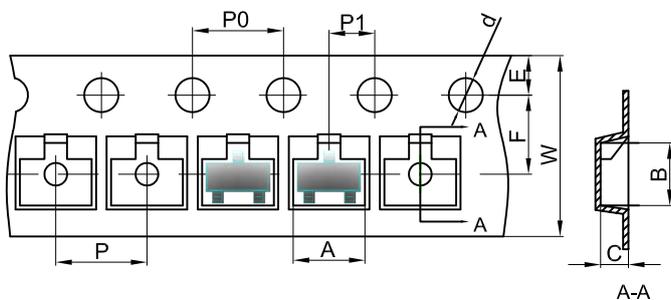
Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	60	V
Collector Emitter Voltage	$-V_{CEO}$	50	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	150	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +150	$^\circ\text{C}$

Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $-V_{CE}=6\text{V}$, $-I_C=1\text{mA}$						
Current Gain Group	R	h_{FE}	40	-	80	-
	O	h_{FE}	70	-	140	-
	Y	h_{FE}	120	-	240	-
	P	h_{FE}	200	-	400	-
	L	h_{FE}	350	-	700	-
Collector Base Breakdown Voltage at $-I_C=100\mu\text{A}$	$-V_{(BR)CBO}$	60	-	-	V	
Collector Emitter Breakdown Voltage at $-I_C=10\text{mA}$	$-V_{(BR)CEO}$	50	-	-	V	
Emitter Base Breakdown Voltage at $-I_E=10\mu\text{A}$	$-V_{(BR)EBO}$	5	-	-	V	
Collector Cutoff Current at $-V_{CB}=60\text{V}$	$-I_{CBO}$	-	-	0.1	μA	
Emitter Cutoff Current at $-V_{EB}=5\text{V}$	$-I_{EBO}$	-	-	0.1	μA	
Collector Saturation Voltage at $-I_C=100\text{mA}$, $-I_B=10\text{mA}$	$-V_{CE(sat)}$	-	-	0.3	V	
Base Emitter Voltage at $-V_{CE}=6\text{V}$, $-I_C=1\text{mA}$	$-V_{BE(on)}$	0.5	-	0.8	V	
Gain Bandwidth Product at $-V_{CE}=6\text{V}$, $-I_C=10\text{mA}$	f_T	50	180	-	MHz	
Output Capacitance at $-V_{CB}=10\text{V}$, $f=1\text{MHz}$	C_{OB}	-	2.8	-	pF	
Noise Figure at $-V_{CE}=6\text{V}$, $-I_C=0.3\text{mA}$, $f=100\text{Hz}$, $R_S=10\text{K}\Omega$	F	-	6	20	dB	

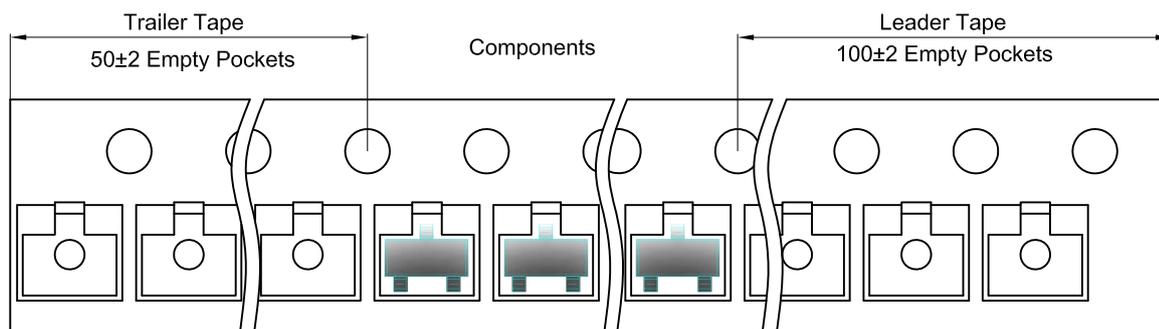
SOT-23 Tape and Reel

SOT-23 Embossed Carrier Tape

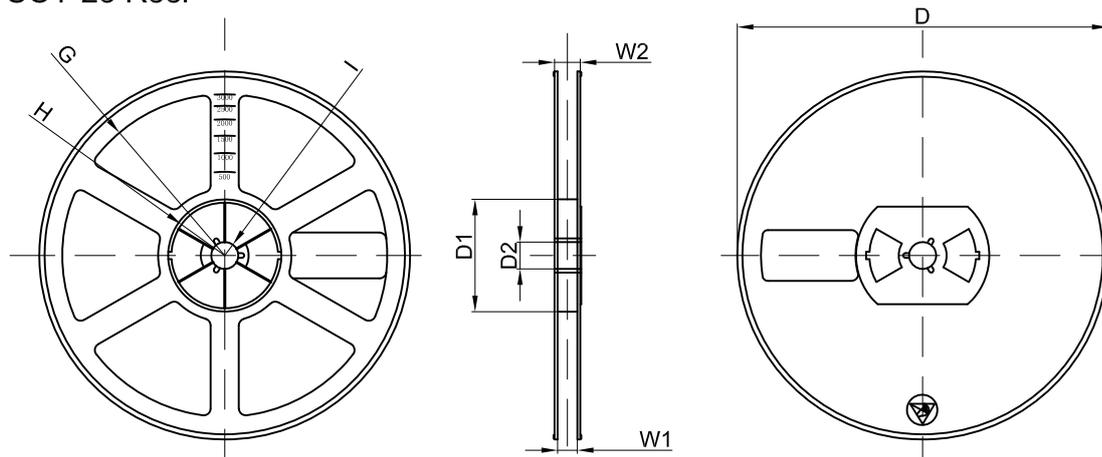


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

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
θ	0°	8°

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