

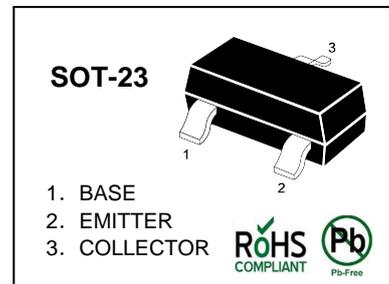
NPN Silicon Epitaxial Planar Transistors

for general purpose applications, darlington transistor.

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.

MARKING: K3D



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

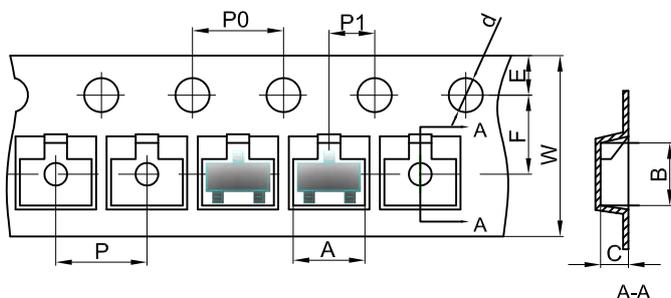
	Symbol	Value	Unit
Collector Emitter Voltage	V_{CES}	30	V
Collector Base Voltage	V_{CBO}	30	V
Emitter Base Voltage	V_{EBO}	10	V
Collector Current	I_C	500	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +150	$^\circ\text{C}$

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

	Symbol	Min.	Max.	Unit
DC Current Gain				
at $V_{CE}=5\text{V}$, $I_C=10\text{mA}$	h_{FE}	10000	-	-
at $V_{CE}=5\text{V}$, $I_C=100\text{mA}$	h_{FE}	20000	-	-
Collector Emitter Breakdown Voltage				
at $I_C=100\mu\text{A}$	$V_{(BR)CES}$	30	-	V
Collector Cutoff Current				
at $V_{CB}=30\text{V}$	I_{CBO}	-	100	nA
Emitter Cutoff Current				
at $V_{EB}=10\text{V}$	I_{EBO}	-	100	nA
Collector Emitter Saturation Voltage				
at $I_C=100\text{mA}$, $I_B=0.1\text{mA}$	$V_{CE(sat)}$	-	1.5	V
Base Emitter On Voltage				
at $I_C=100\text{mA}$, $V_{CE}=5\text{V}$	$V_{BE(on)}$	-	2	V
Current Gain Bandwidth Product				
at $V_{CE}=5\text{V}$, $I_C=10\text{mA}$, $f=100\text{MHz}$	f_T	125	-	MHz

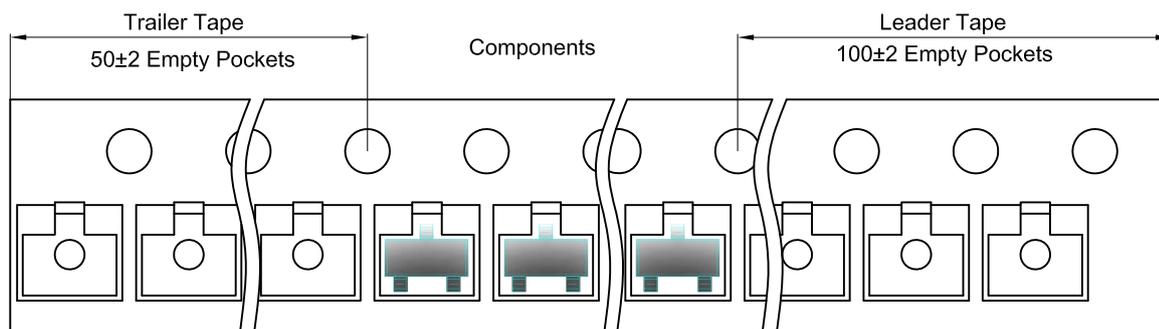
SOT-23 Tape and Reel

SOT-23 Embossed Carrier Tape

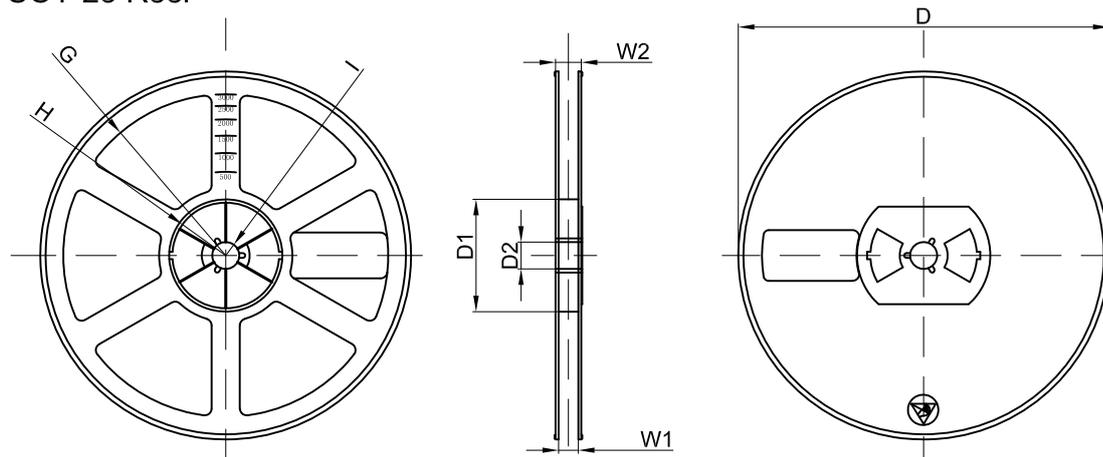


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-23 Tape Leader and Trailer

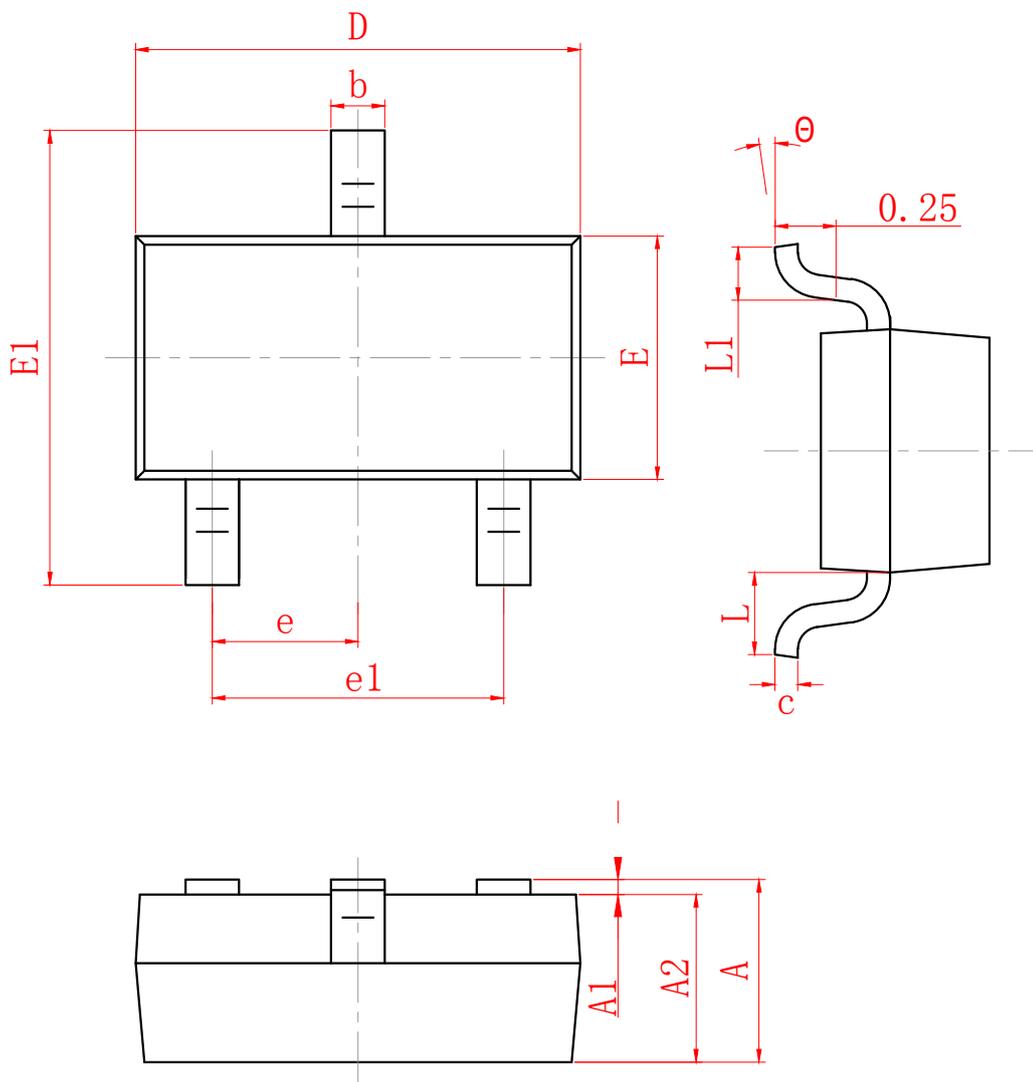


SOT-23 Reel



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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