Lastinght

C945

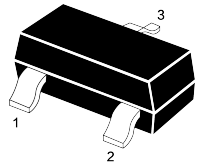
TRANSISTOR (NPN)

FEATURE

Excellent h_{FE} Linearity

Low noise

Complementary to A733



1. BASE
2. EMITTER
3. COLLECTOR

RoHS COMPLIANT

Pb-Free

MARKING: CR

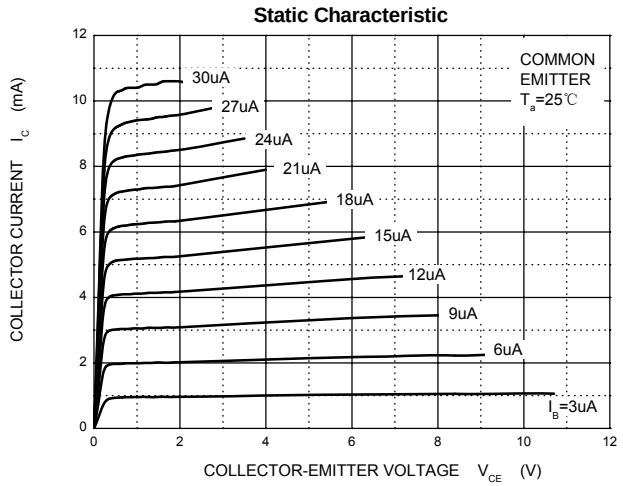
MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

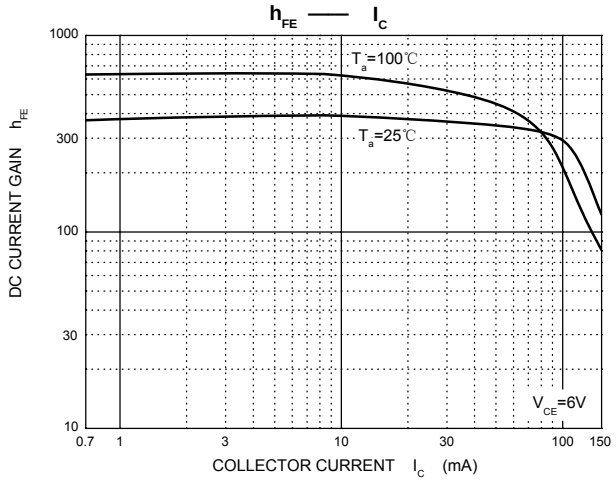
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	150	mA
P_C	Collector Power Dissipation	200	mW
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

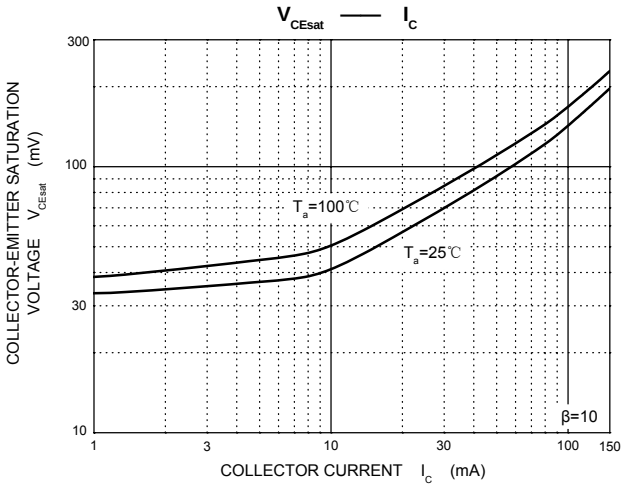
ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

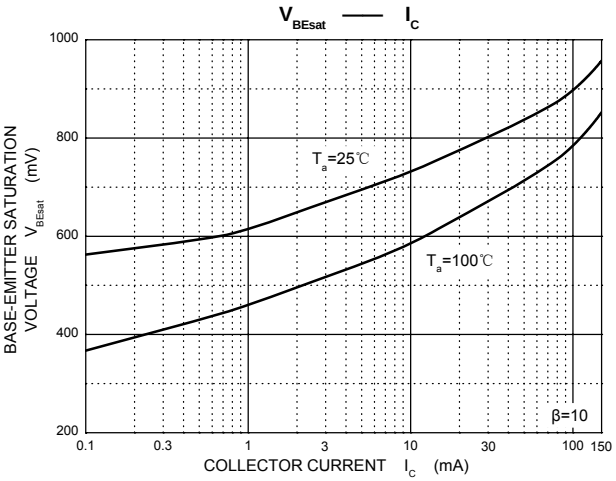
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	I_C=100uA, I_E=0	60			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	I_C=1mA , I_B=0	50			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	I_E=0.1mA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=60V, I_E=0			0.1	μA
Collector cut-off current	I_{CER}	V_{CE}=55V, R=10MΩ			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V, I_C=0			0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=6V, I_C=1mA	200		400	
	$h_{FE(2)}$	V_{CE}=6V, I_C=0.1mA	40			
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=100mA, I_B=10mA			0.3	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C=100mA, I_B=10mA			1	V
Transition frequency	f_T	V_{CE}=6V,I_C=10mA,f =30 MHz	150			MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz			3.0	pF
Noise figure	NF	V_{CE}=6V, I_C=0.1mA R_g=10kΩ, f=1kMHz		4	10	dB

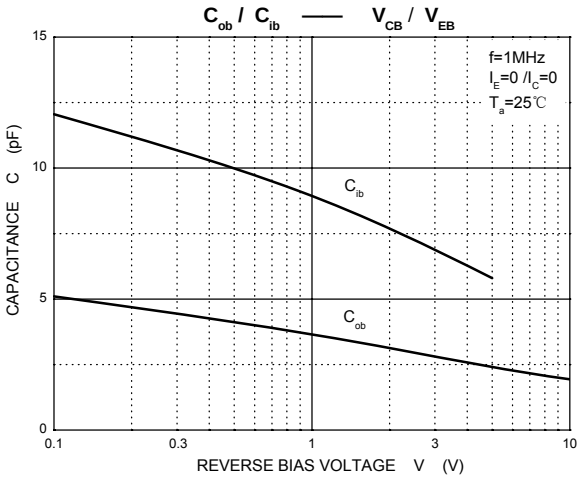
Typical Characteristics

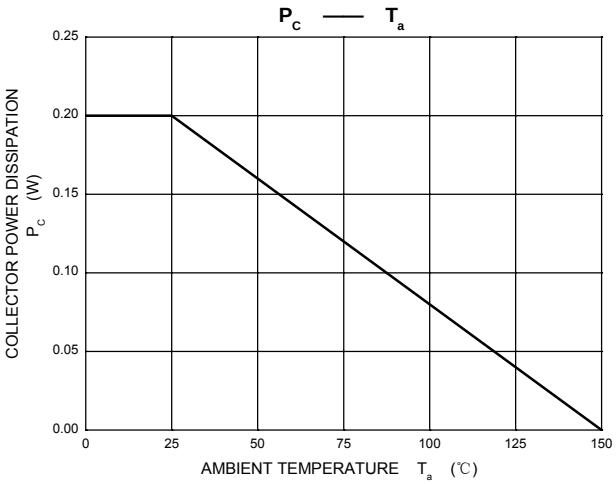






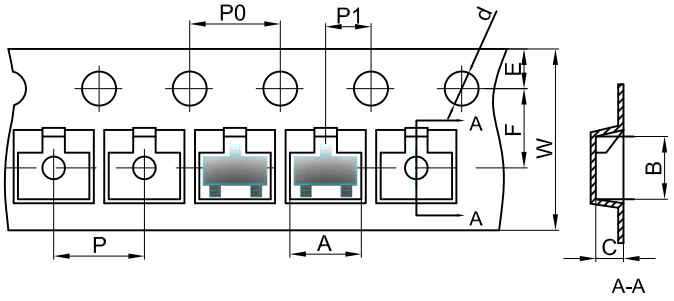






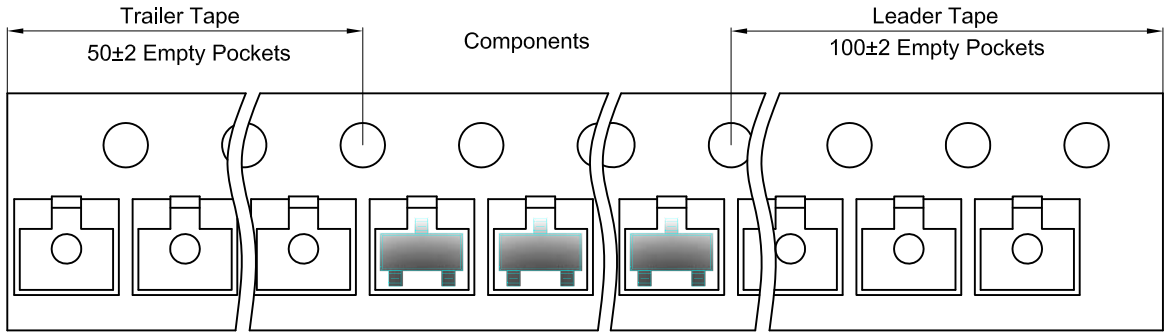
SOT-23 Tape and Reel

SOT-23 Embossed Carrier Tape

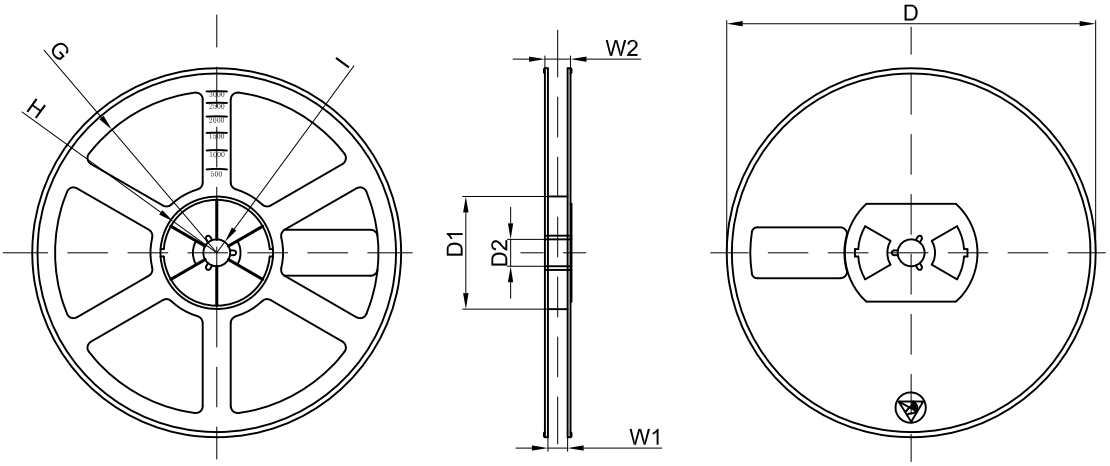


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-23 Tape Leader and Trailer

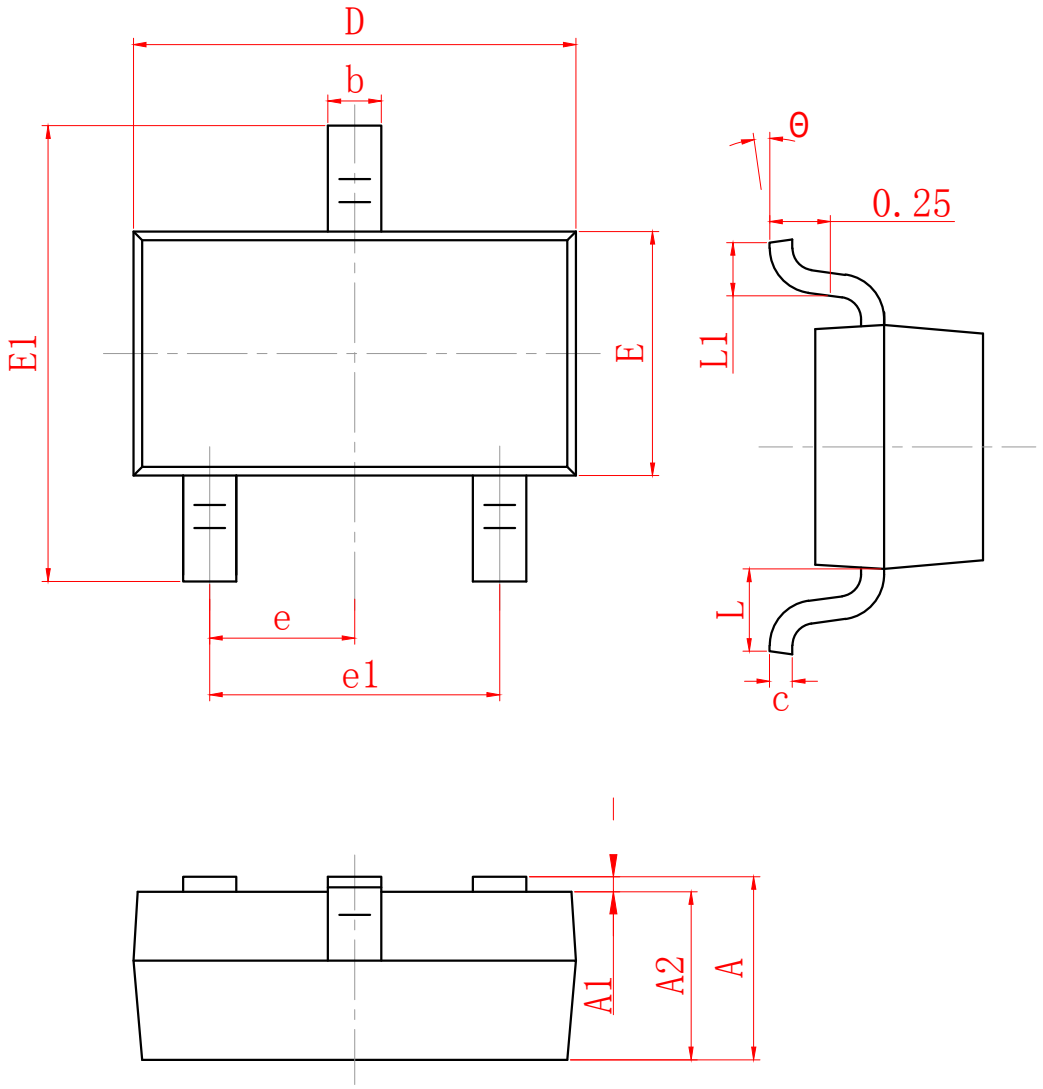


SOT-23 Reel



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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