

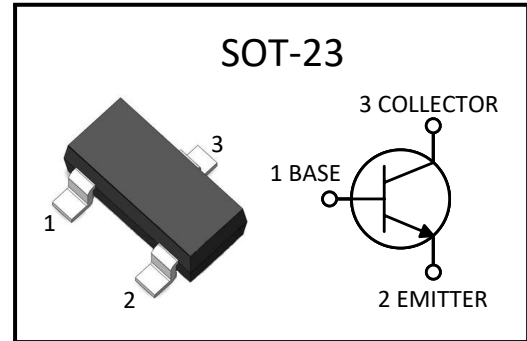
KTD1304

NPN Plastic-Encapsulate Transistor

Features

- $V_{CE}=25V$
- $f_T=650MHz$ @ $V_{CE}=10V$, $I_C=4mA$, $f=100MHz$

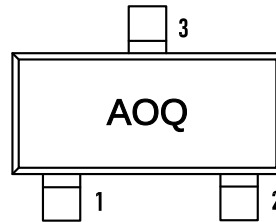
Package



Description

- VHF/UHF Transistors
- SOT-23 Plastic Package.
- We declare that the material of product compliancewith RoHS requirements.

Marking



Ordering information

Order code	PacAMkage	Marking	Base qty	Delivery mode
KDT1304	SOT-23	AOQ	3K	Tape and reel

Absolute Maximum Ratings @ $T_A=25^{\circ}C$ unless otherwise noted

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	3	V
I_C	Collector Current	50	mA
P_C	Collector Power Dissipation	225	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	556	$^{\circ}C/W$
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature	-55 to + 150	$^{\circ}C$



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Electrical Characteristics (T_A=+25°C, unless otherwise specified)

Symbol	Parameter	Test condition	Min.	Typ.	Max.	Unit
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =100μA, I _E =0	30	—	—	V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =1mA, I _B =0	25	—	—	
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10μA, I _C =0	3	—	—	
I _{CBO}	Collector cut-off current	V _{CB} =25V, I _E =0	—	—	0.1	uA
I _{EBO}	Emitter cut-off current	V _{EB} =2V, I _C =0	—	—	0.1	
h _{FE}	DC current gain	V _{CE} =10V, I _C =4mA	60	—	300	
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =4mA, I _B =0.4mA	—	—	0.5	V
V _{BE}	Base-emitter voltage	V _{CE} =10V, I _C =4mA	—	—	0.95	V
f _T	Transition frequency	V _{CE} =10V, I _C =4mA, f=100MHZ	650	—	—	MHZ
C _{ob}	Collector output capacitance	V _{CB} =10V, I _E =0, f=1MHZ	—	—	0.7	pF



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COMMON-BASE y PARAMETERS versus FREQUENCY ($V_{CB}=10V_{dc}$, $I_C=4.0\text{ mA}$, $T_A=25^\circ\text{C}$) y_{ib} , INPUT ADMITTANCE

Figure 1 :Rectangular Form

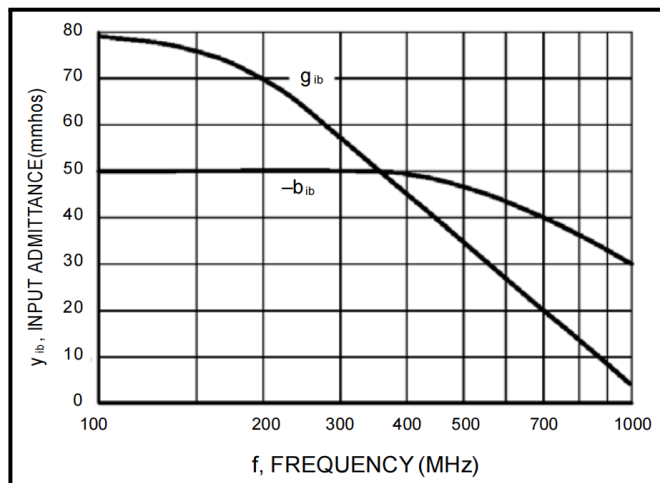
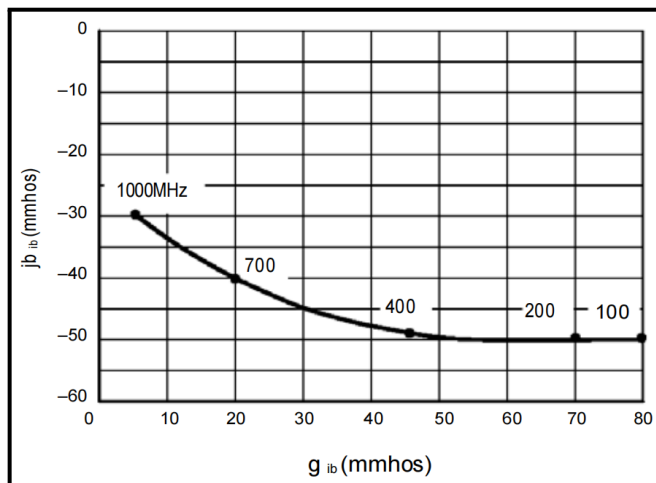


Figure 2 :Polar Form



y_{fb} , FORWARD TRANSFER ADMITTANCE

Figure 3 :Rectangular Form

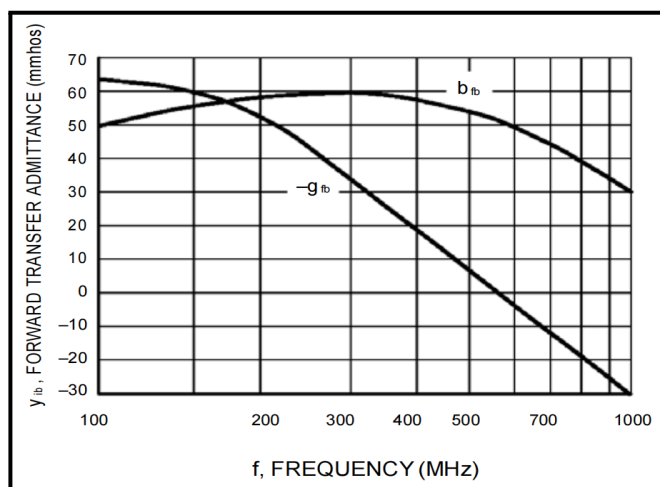
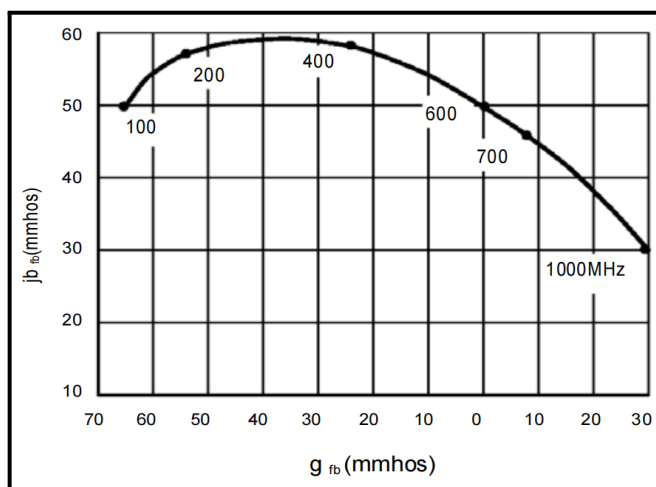


Figure 4 :Polar Form



COMMON-BASE y PARAMETERS versus FREQUENCY ($V_{CB}=10V_{dc}$, $I_C=4.0\text{ mA}$, $T_A=25^\circ\text{C}$) y_{ib} , INPUT ADMITTANCE

Figure 5: Rectangular Form

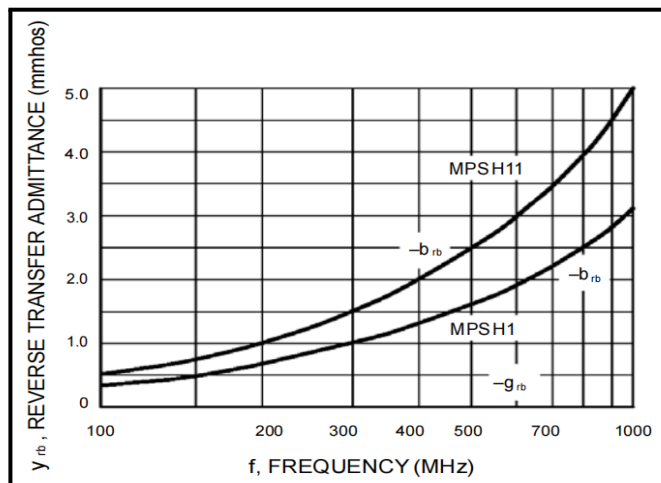
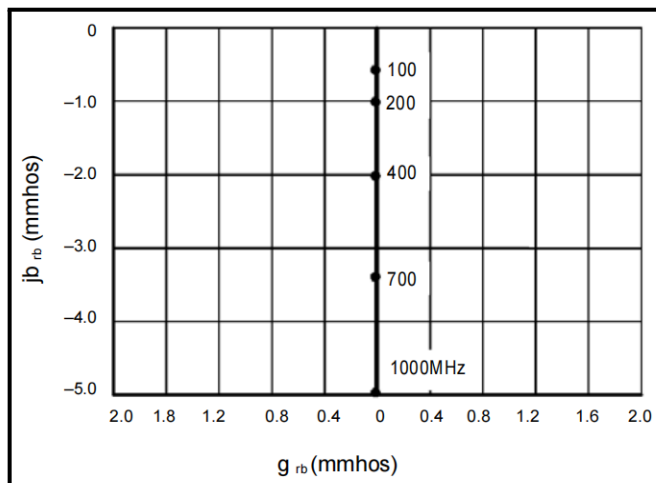


Figure 6: Polar Form



y_{ob} , OUTPUT ADMITTANCE

Figure 7: Rectangular Form

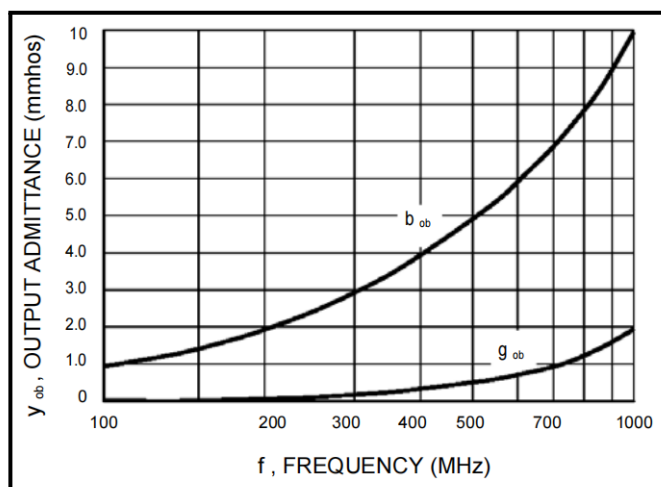
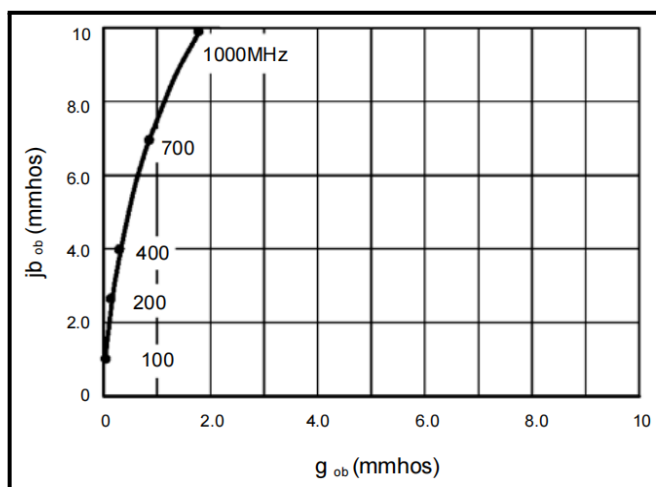


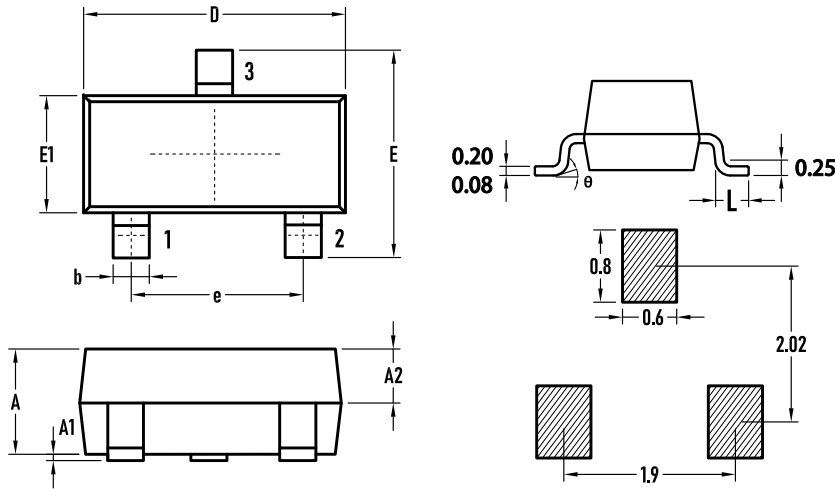
Figure 8: Polar Form



KTD1304

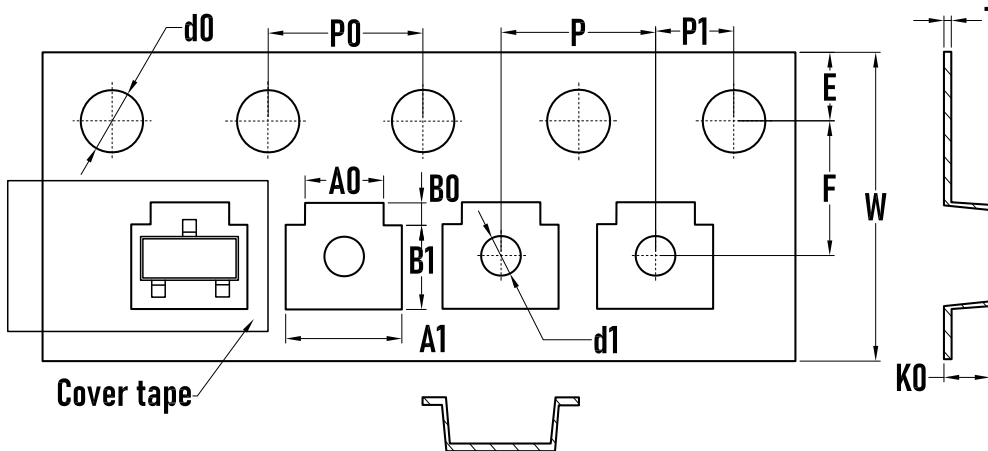
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Outline Drawing - SOT-23



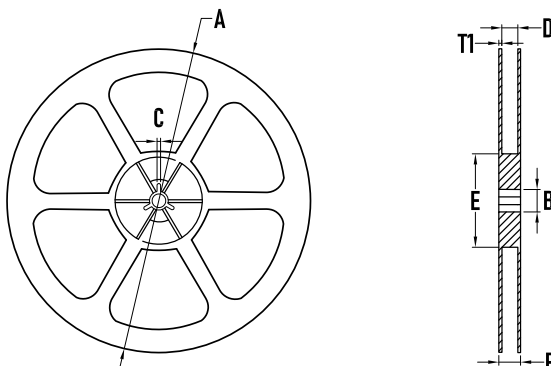
SYMBOL	MILLIMETER		
	MIN.	Typ	MAX
A	0.95	1.00	—
A1	0.02	0.06	0.10
A2	—	0.60	—
D	2.85	2.90	2.95
b	0.37	0.40	0.43
E	2.35	2.40	2.45
E1	1.25	1.30	1.35
e	1.85	1.90	1.95
L	0.35	0.40	0.48
θ	0	—	6°

Packaging Tape - SOT-23



SYMBOL	MILLIMETER
A0	2.10±0.10
A1	3.10±0.10
B0	0.65±0.10
B1	2.75±0.10
d0	1.55±0.10
d1	1.00±0.05
E	1.75±0.10
F	3.50±0.10
K0	1.10±0.10
P	4.00±0.10
P0	4.00±0.10
P1	2.00±0.10
W	8.00±0.30
T	0.20 ±0.05

Packaging Reel



SYMBOL	MILLIMETER
A	177.8±0.2
B	3.1
C	13.50
D	9.6±0.3
E	75±0.2
F	12.3±0.3
T1	1.0±0.2
Quantity	3000PCS

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Specifications are subject to change without notice.

Please refer to <http://www.born-tw.com> for current information.

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