KODENSHI AUK

2SA1981S

PNP Silicon Transistor

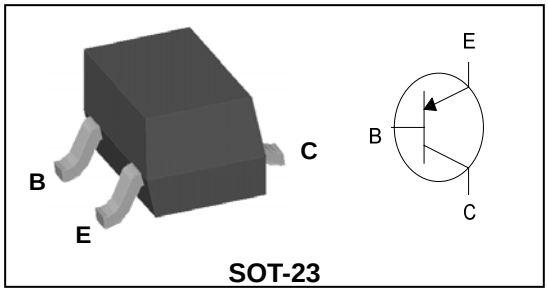
Description

- Audio power amplifier application

Features

- High h_{FE} : h_{FE}=100~320
- Complementary pair with 2SC5344S

PIN Connection



SOT-23

Ordering Information

Type No.	Marking	Package Code
2SA1981S	EA □ □ (① ② ③)	SOT-23

① Device Code ② hFE Rank ③ Year&Week Code

Absolute maximum ratings (Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	-35	V
Collector-Emitter voltage	V_{CEO}	-30	V
Emitter-Base voltage	V_{EBO}	-5	V
Collector current	I_C	-800	mA
Collector dissipation	P_C*	350	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55~150	°C

* Package mounted on 99.5% alumina 10×8×0.6mm

Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	I_C=-500μA, I_E=0	-35	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	I_C=-1mA, I_B=0	-30	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	I_E=-50μA, I_C=0	-5	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=-35V, I_E=0	-	-	-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V, I_C=0	-	-	-0.1	μA
DC current gain	h_{FE}*	V_{CE}=-1V, I_C=-100mA	100	-	320	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	I_C=-500mA, I_B=-20mA	-	-	-0.5	V
Transition frequency	f_T	V_{CE}=-5V, I_E=10mA	-	120	-	MHz
Collector output capacitance	Cob	V_{CB}=-10V, I_E=0, f=1MHz	-	19	-	pF

* : h_{FE} rank / O : 100~200, Y : 160~320

Electrical Characteristic Curves

Fig. 1 Pc-Ta

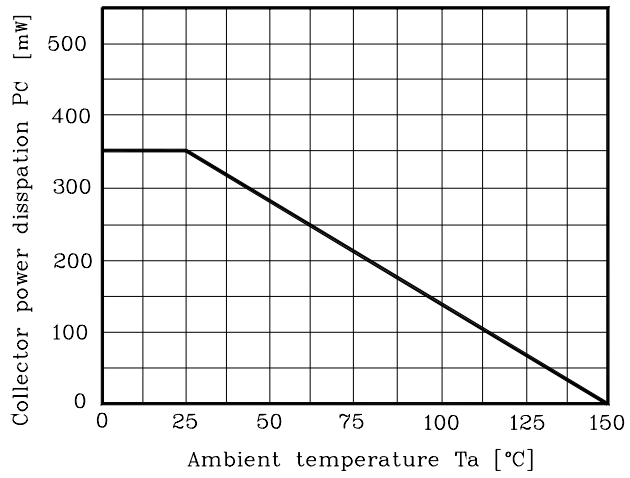


Fig. 2 IC -V_{BE}

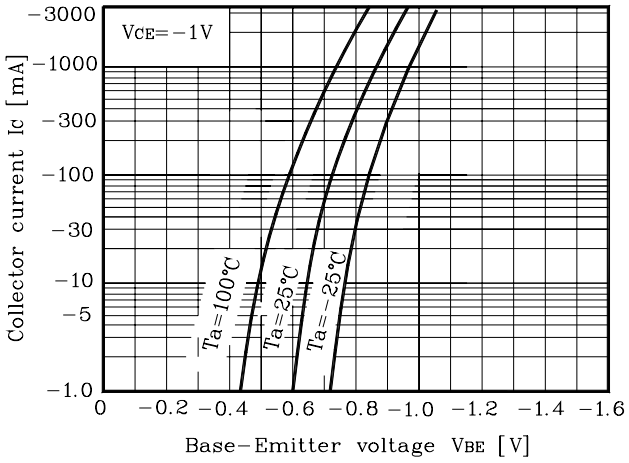


Fig. 3 I_C - V_{CE}

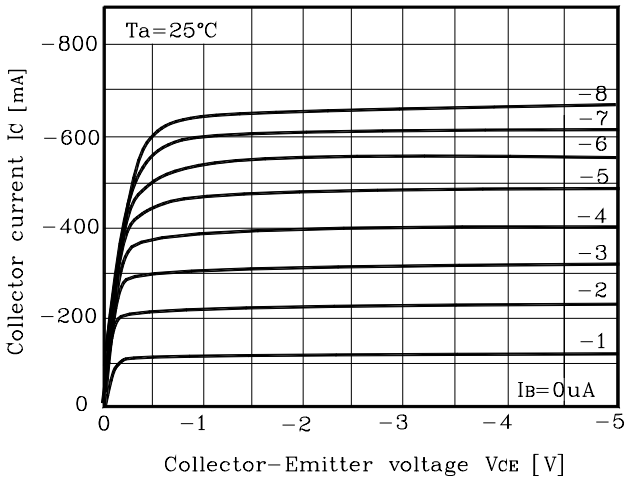


Fig. 4 h_{FE} - I_C

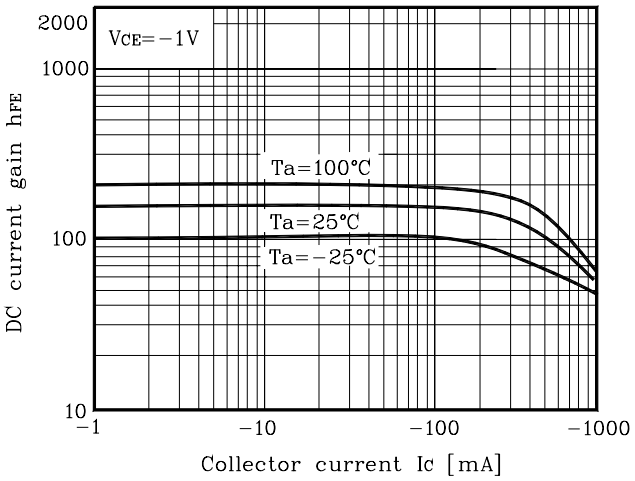
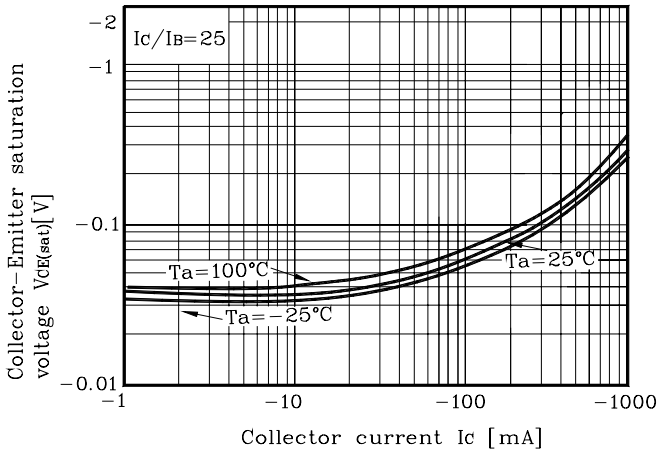
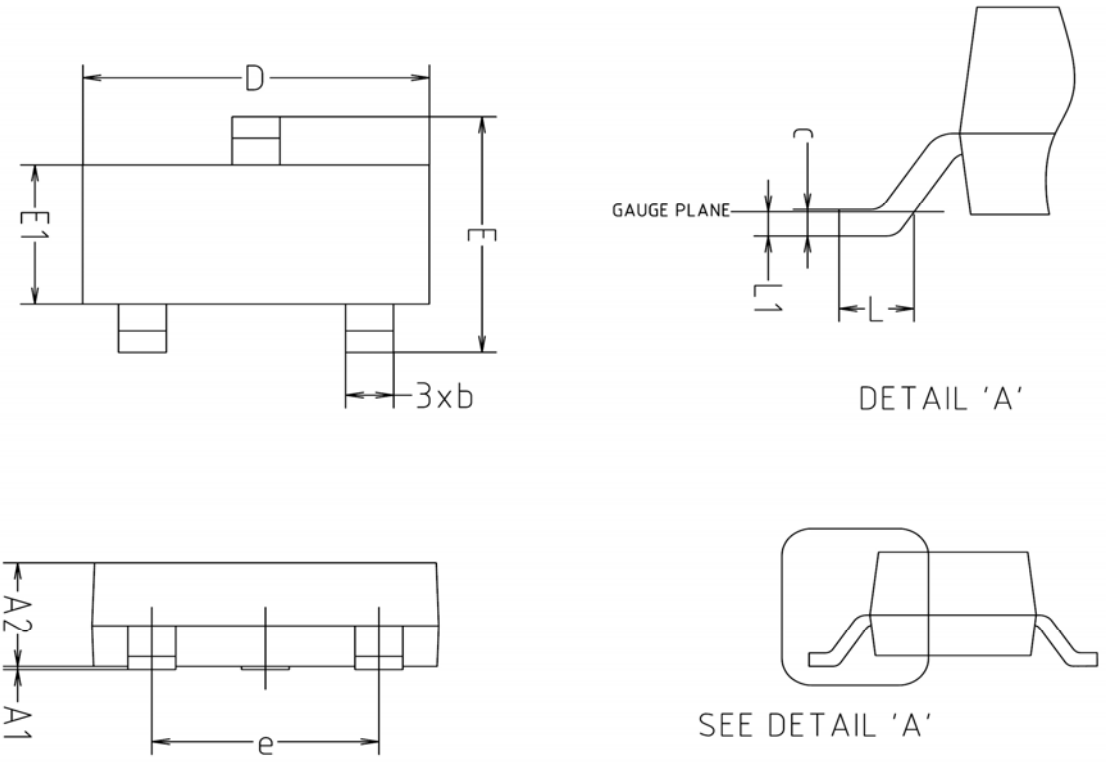


Fig. 5 $V_{CE(SAT)}$ - I_C

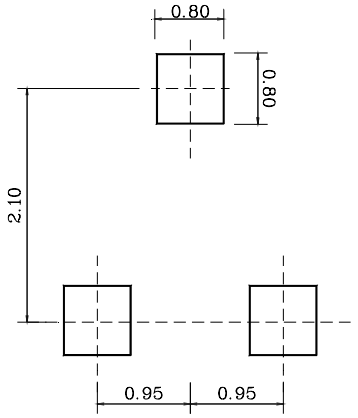


Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A1	0.00	-	0.10	
A2	0.82	-	1.02	
b	0.39	0.42	0.45	
c	0.09	0.12	0.15	
D	2.80	2.90	3.00	
E	2.20	2.40	2.60	
E1	1.20	1.30	1.40	
e	1.90BSC			
L	0.20	-	-	
L1	0.12BSC			

※Recommend PCB solder land [Unit: mm]



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