KODENSHI AUK

2SA1980S

PNP Silicon Transistor

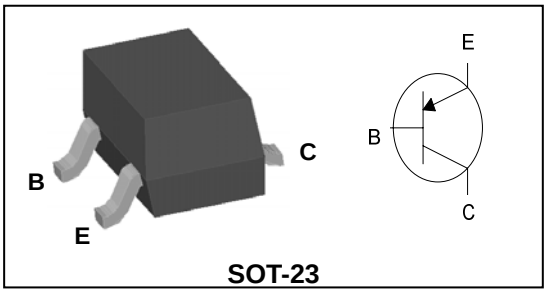
Description

- General small signal amplifier

Features

- Low collector saturation voltage :
  $V_{CE(sat)}$=-0.3V(Max.)
- Low output capacitance : Cob=4pF(Typ.)
- Complementary pair with 2SC5343S

PIN Connection



Ordering Information

Type NO.	Marking	Package Code
2SA1980S	CA □ □ ① ② ③	SOT-23

①Device Code ②hFE Rank ③Year&Week Code

Absolute Maximum Ratings (Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-50	V
Collector-emitter voltage	V_{CEO}	-50	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-150	mA
Collector power dissipation	P_C*	350	mW
Junction temperature	T_j	150	°C
Storage temperature range	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-emitter breakdown voltage	BV_{CEO}	I_C=-1mA, I_B=0	-50	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=-50V, 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}=-6V, I_C=-2mA	70	-	700	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100mA, I_B=-10mA	-	-	-0.3	V
Transition frequency	f_T	V_{CE}=-10V, I_C=-1mA	80	-	-	MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	4	-	pF
Noise figure	NF	V_{CE}=-6V, I_C=-0.1mA f=1KHz, Rg=10KΩ	-	10	-	dB

*: h_{FE} rank / O : 70~140, Y : 120~240, G : 200~400, L : 300~700.

Electrical Characteristic Curves

Fig. 1 P_C - T_a

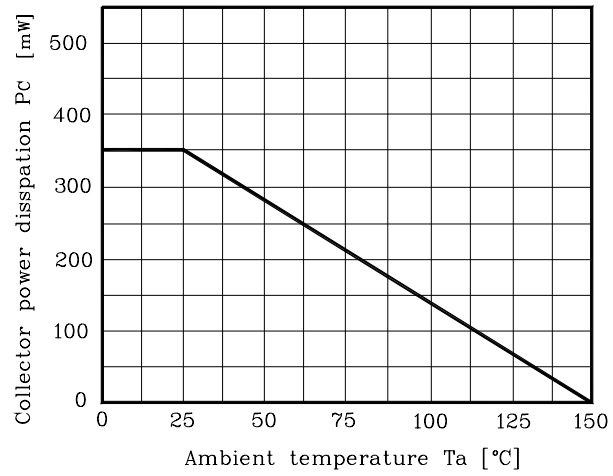


Fig. 2 I_C - V_{BE}

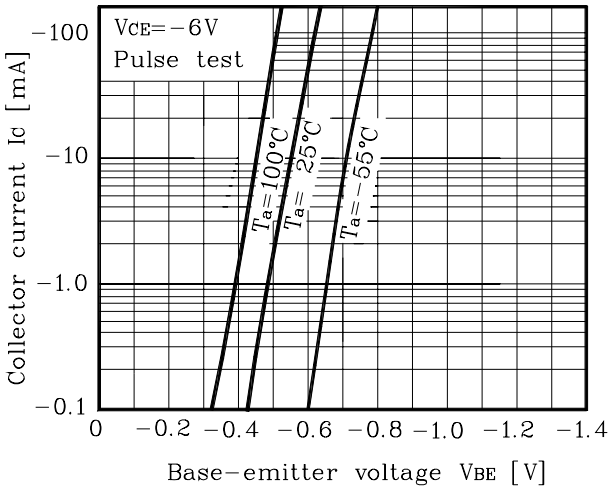


Fig. 3 I_C - V_{CE}

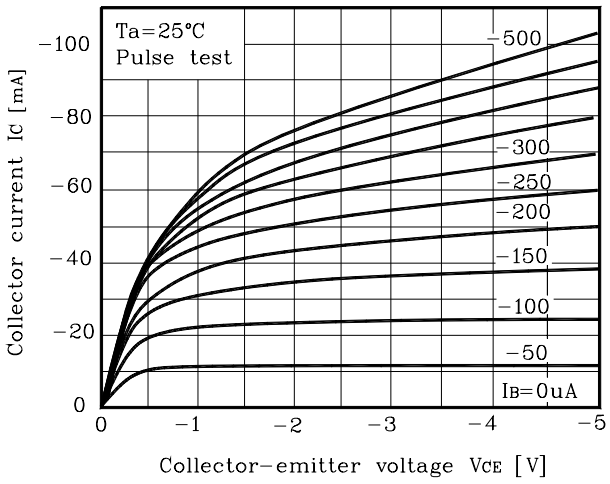


Fig. 4 h_{FE} - I_C

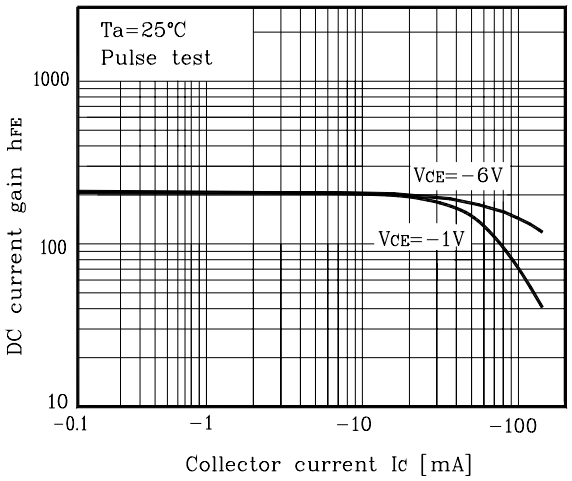
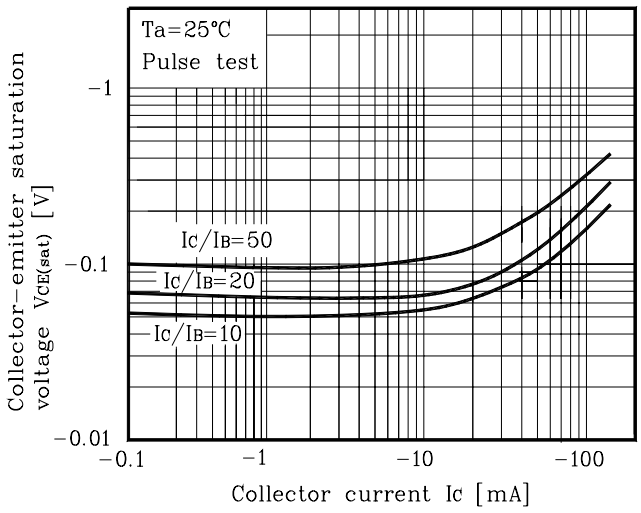
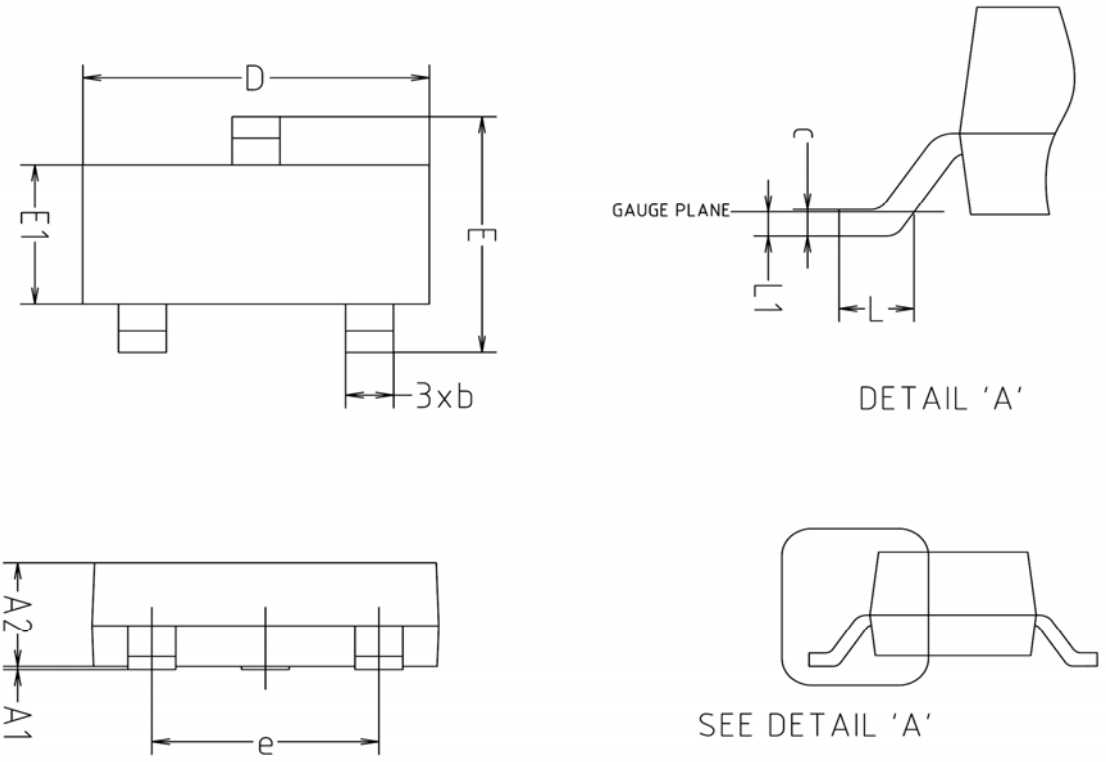


Fig. 5 $V_{CE(sat)}$ - I_C

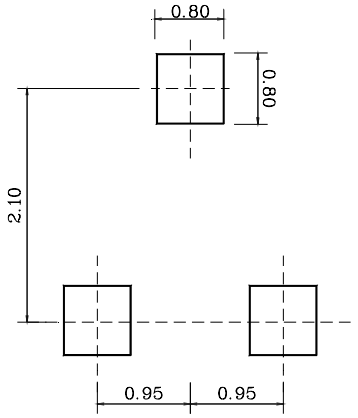


Outline Dimension



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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