KODENSHI AUK

2SA1980

PNP Silicon Transistor

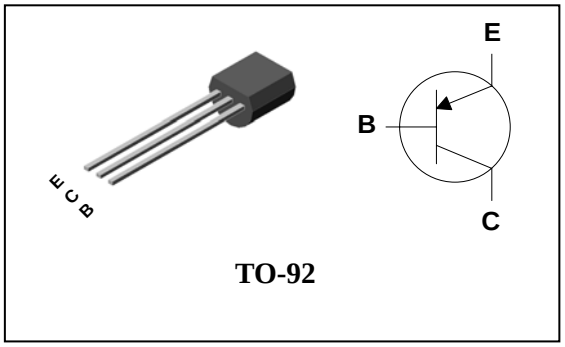
Description

- General small signal amplifier

Features

- Low collector saturation voltage
  : $V_{CE(sat)}$= -0.3V(Max.)
- Low output capacitance : C_{ob}= 4pF(Typ.)
- Complementary pair with 2SC5343

PIN Connection



TO-92

Ordering Information

Type NO.	Marking	Package Code
2SA1980	A1980	TO-92

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	500	mW
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55~150	°C

Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-base breakdown voltage	BV_{CBO}	I_C= -100μA, I_E= 0	-50	-	-	V
Collector-emitter breakdown voltage	BV_{CEO}	I_C= -1mA, I_B= 0	-50	-	-	V
Emitter-base breakdown voltage	BV_{EBO}	I_E= -10μA, I_C= 0	-5	-	-	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	7	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

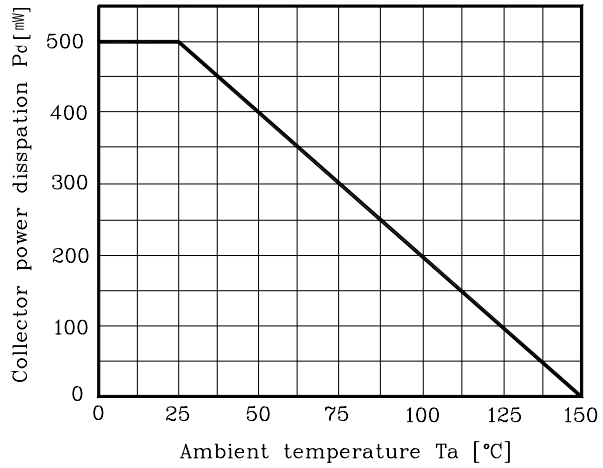


Fig. 2 I_C - V_{BE}

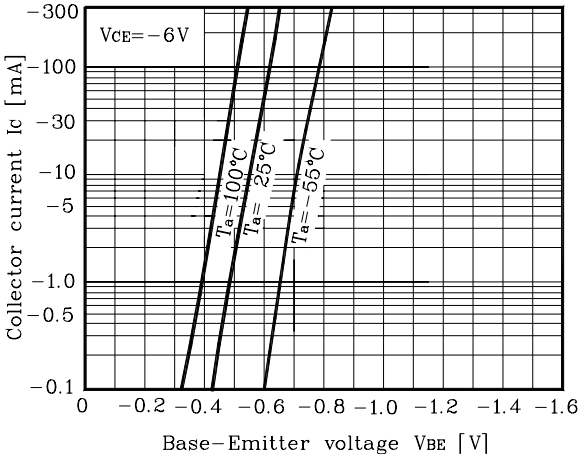


Fig. 3 I_C - V_{CE}

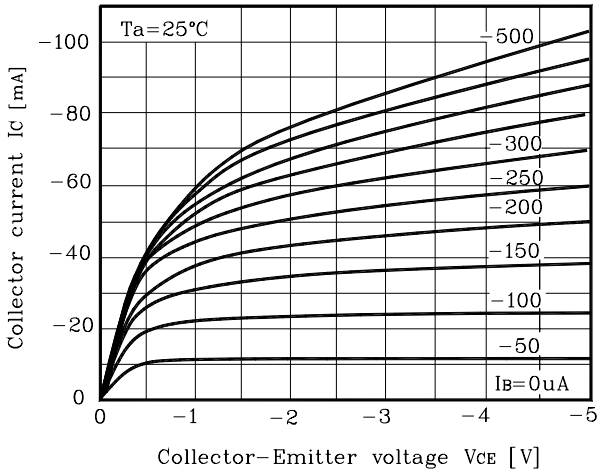


Fig. 4 h_{FE} - I_C

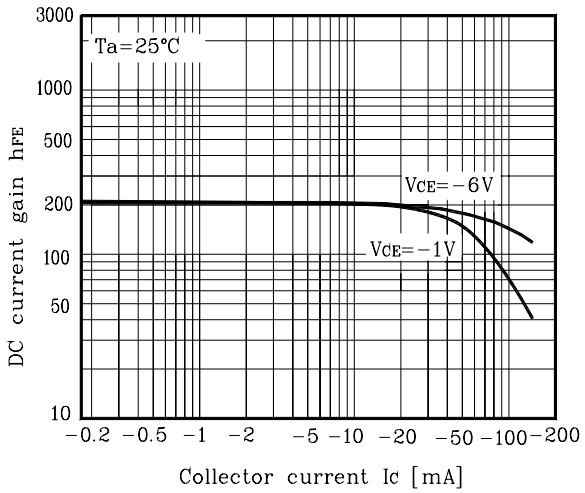
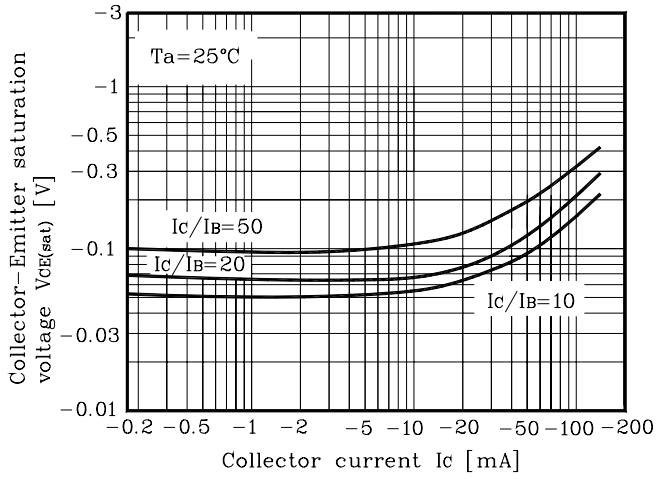
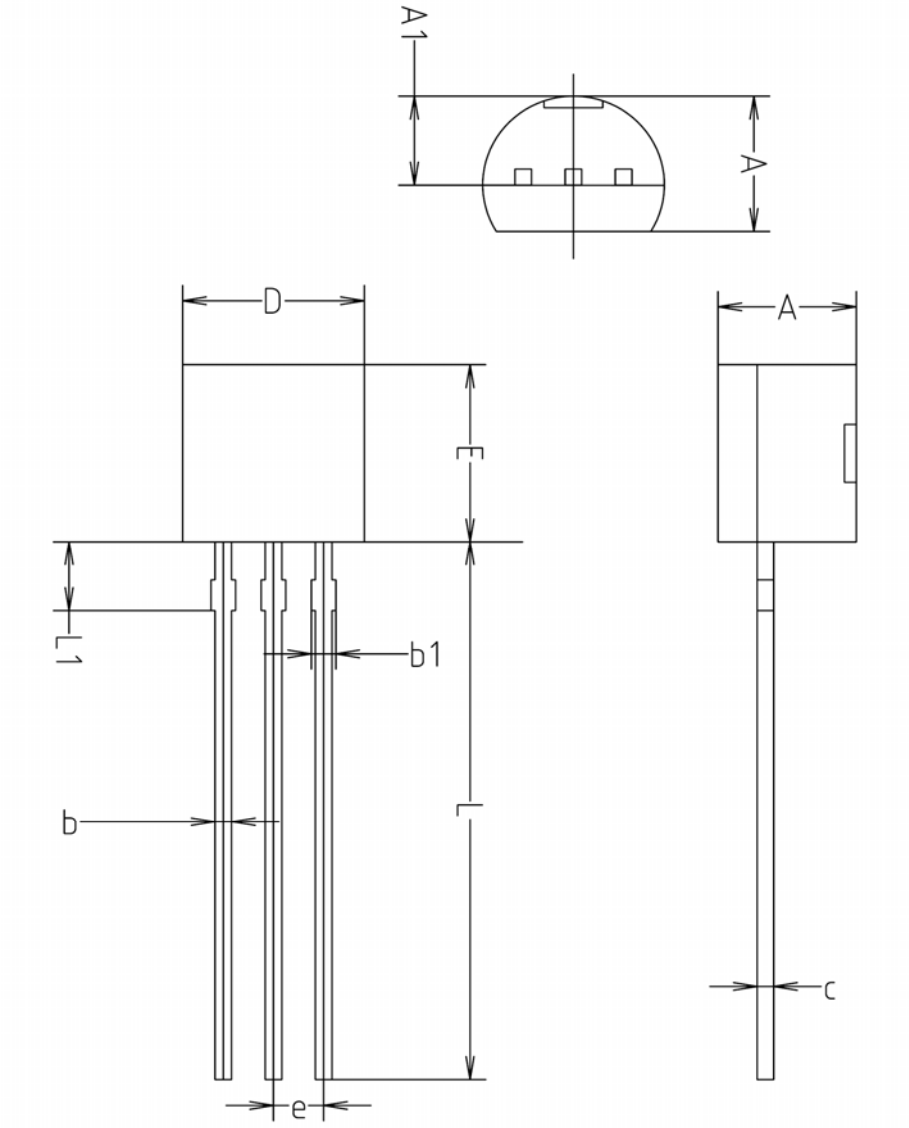


Fig. 5 $V_{CE(sat)}$ - I_C



Outline Dimension



SYMBOL	MILLMETERS(mm)		
	MINIMUM	NOMINAL	MAXIMUM
A	3.40	3.50	3.66
A1	2.46	2.51	2.59
b	0.39	0.44	0.53
b1	0.39	–	0.63
c	0.35	0.42	0.47
D	4.48	4.60	4.70
E	4.48	4.60	4.70
e	1.17	1.27	1.37
L	13.70	14.00	14.77
L1	1.55	1.70	2.15

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