KODENSHI AUK

2SC5342

NPN Silicon Transistor

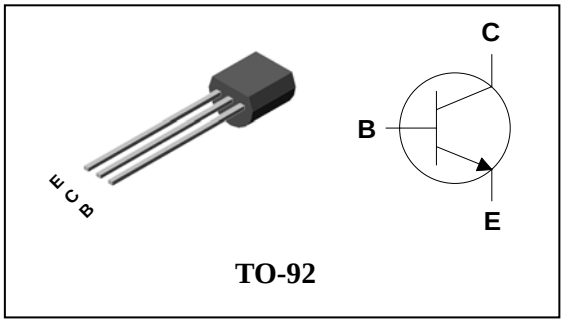
Description

- Medium power amplifier

Features

- Large collector current : I_C= 500mA
- Low collector saturation voltage enabling low-voltage operation
- Complementary pair with 2SA1979

PIN Connection



TO-92

Ordering Information

Type NO.	Marking	Package Code
2SC5342	C5342	TO-92

Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	40	V
Collector-Emitter voltage	V_{CEO}	32	V
Emitter-Base voltage	V_{EBO}	5	V
Collector current	I_C	500	mA
Collector dissipation	P_C	500	mW
Junction temperature	T_j	150	°C
Storage temperature	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	40	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	I_C= 1mA, I_B= 0	32	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	I_E= 10μA, I_C= 0	5	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}= 40V, 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	70	-	240	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	I_C= 100mA, I_B= 10mA	-		0.25	V
Transition frequency	f_T	V_{CE}= 6V, I_C= 20mA	-	300	-	MHz
Collector output capacitance	C_{ob}	V_{CB}= 6V, I_E= 0, f= 1MHz	-	7.0	-	pF

* : h_{FE} Rank / O : 70~140, Y : 120~240

Electrical Characteristic Curves

Fig. 1 Pc - Ta

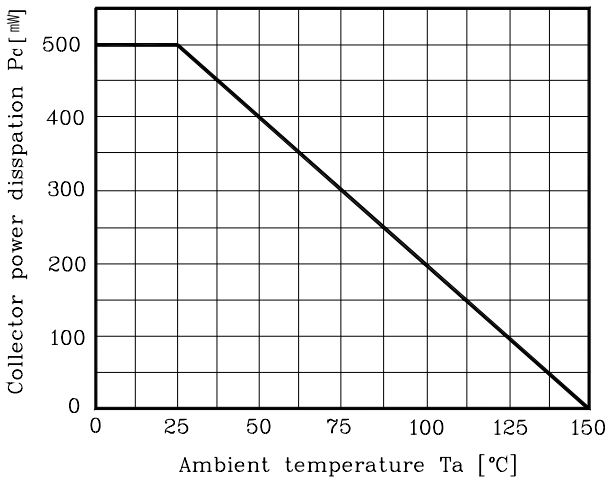


Fig. 2 I_C - V_{BE}

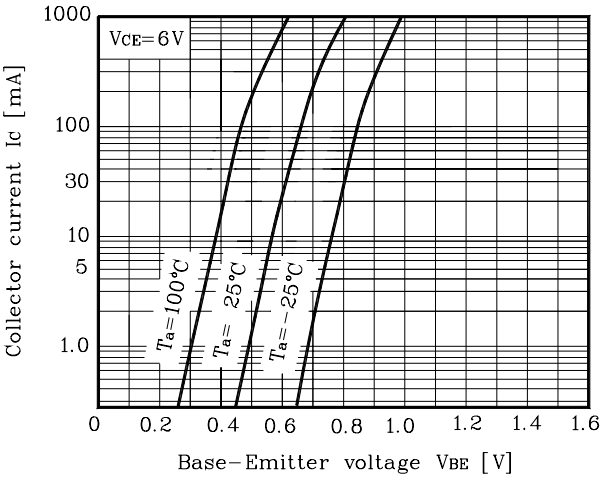


Fig. 3 I_C - V_{CE}

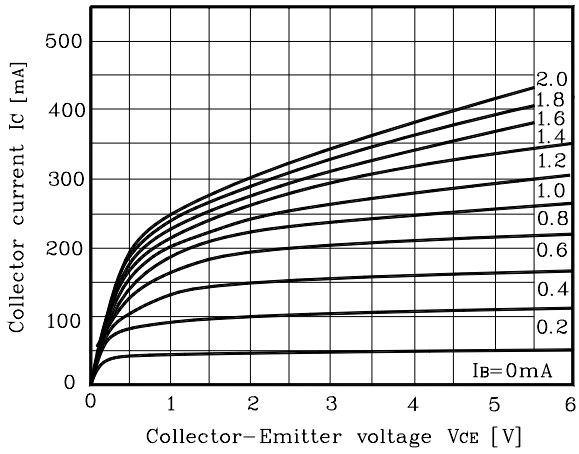


Fig. 4 $V_{CE(SAT)}$ - I_C

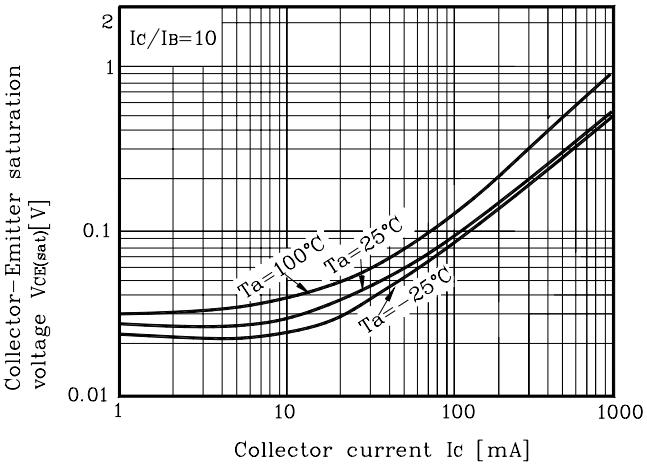
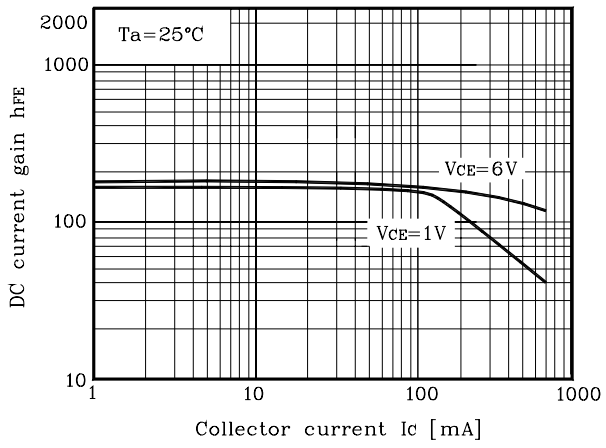
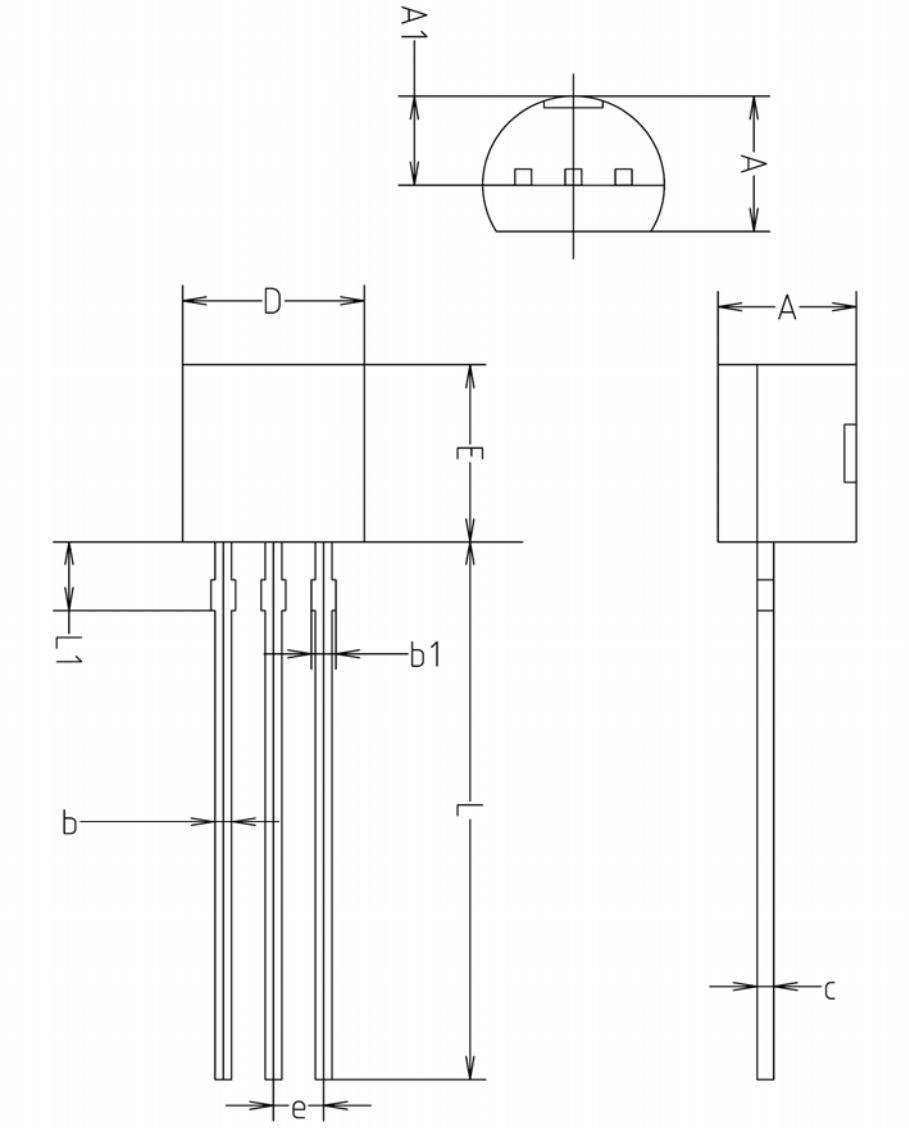


Fig. 5 h_{FE} - I_C



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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