KODENSHI AUK

STS8050

NPN Silicon Transistor

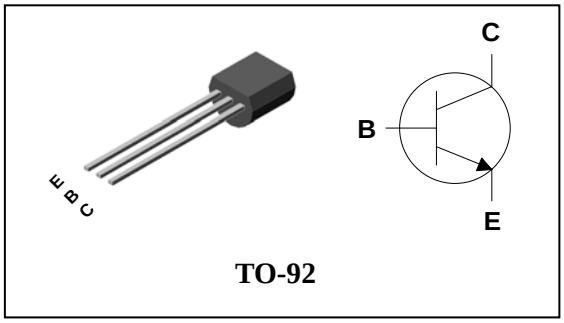
Descriptions

- High current application
- Radio in class B push-pull operation

Feature

- Complementary pair with STS8550

PIN Connection



TO-92

Ordering Information

Type NO.	Marking	Package Code
STS8050	STS8050	TO-92

Absolute Maximum Ratings (Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CEO}	25	V
Emitter-base voltage	V_{EBO}	6	V
Collector current	I_C	800	mA
Emitter current	I_E	-800	mA
Collector power dissipation	P_C	625	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=500μA, I_E=0	30	-	-	V
Collector-emitter breakdown voltage	BV_{CEO}	I_C=1mA, I_B=0	25	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=15V, I_E=0	-	-	50	nA
DC current gain	h_{FE}*	V_{CE}=1V, I_C=50mA	85	-	300	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=500mA, I_B=50mA	-	-	0.5	V
Base-emitter voltage	V_{BE}	V_{CE}=1V, I_C=500mA	-	-	1.2	V
Transition frequency	f_T	V_{CE}=5V, I_C=10mA, f=1MHz	-	120	-	MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0	-	19	-	pF

* : h_{FE} Rank / B : 85~160, C : 120~200, D : 160~300

Electrical Characteristic Curves

Fig. 1 Pc - Ta

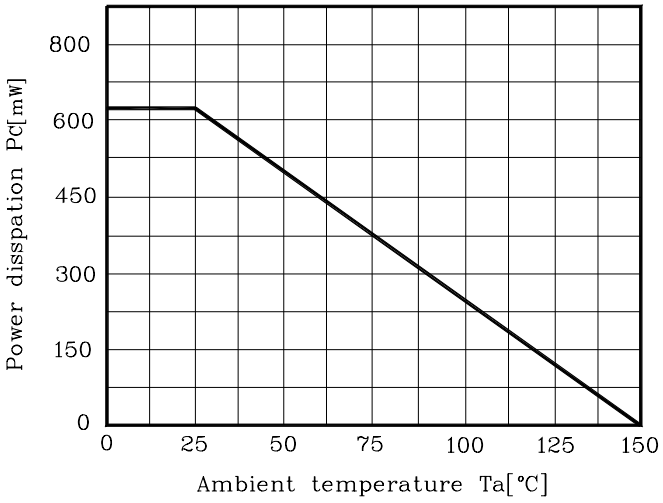


Fig. 2 I_C - V_{BE}

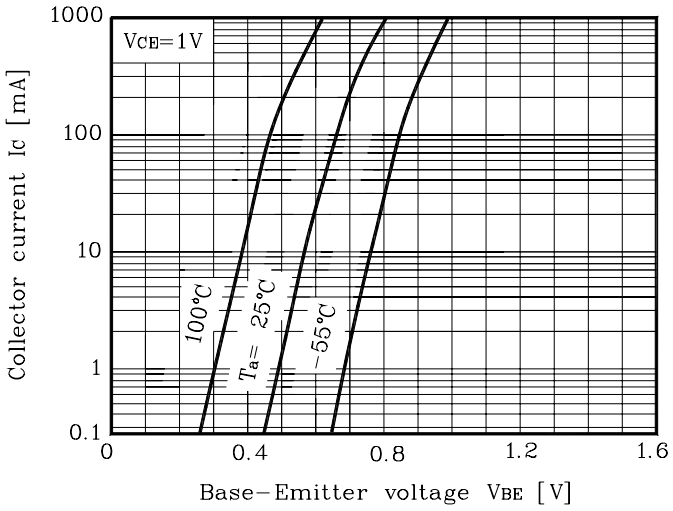


Fig. 3 I_C - V_{CE}

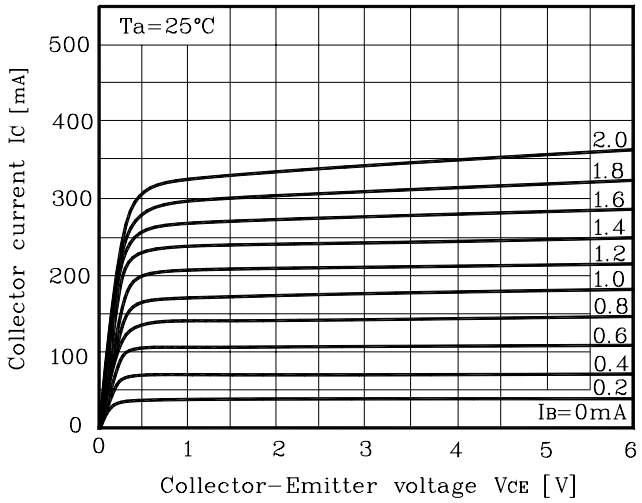


Fig. 4 $V_{CE(SAT)}$ - I_C

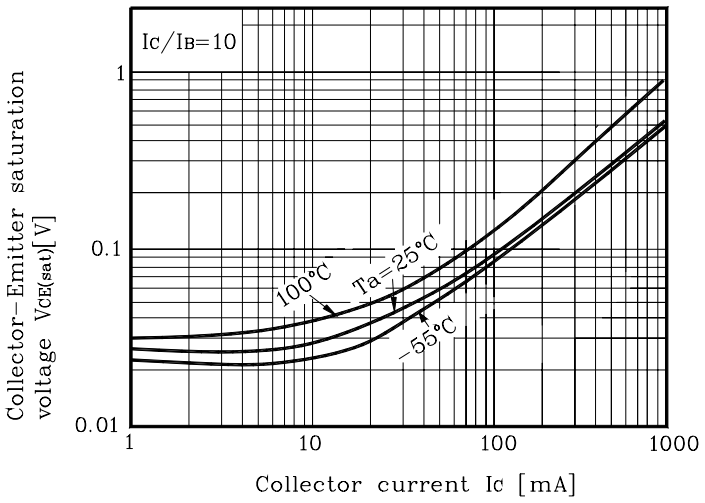


Fig. 5 h_{FE} - I_C

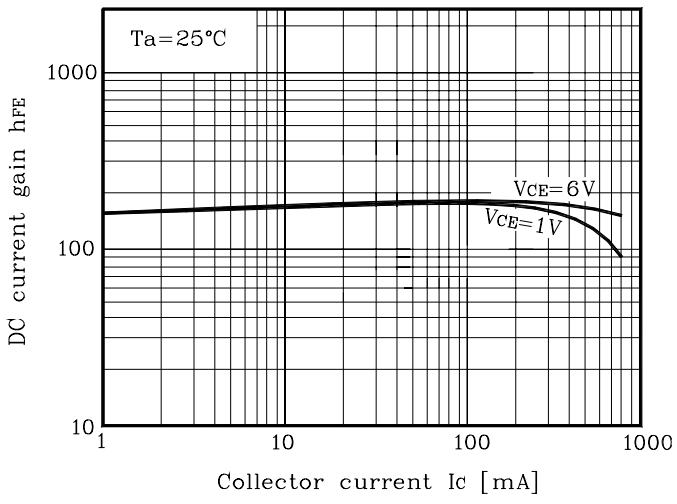
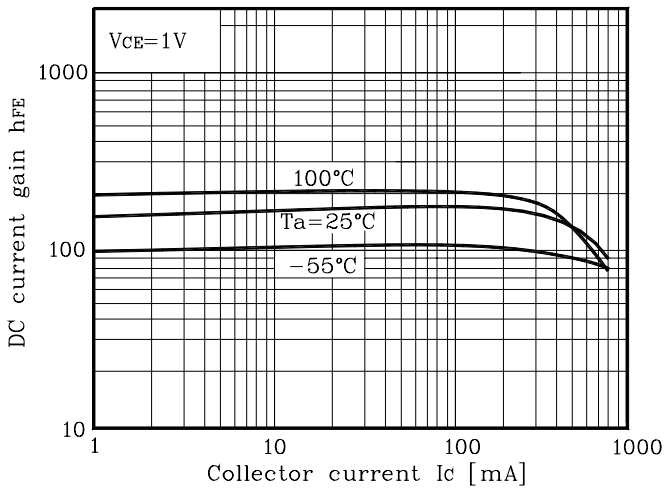
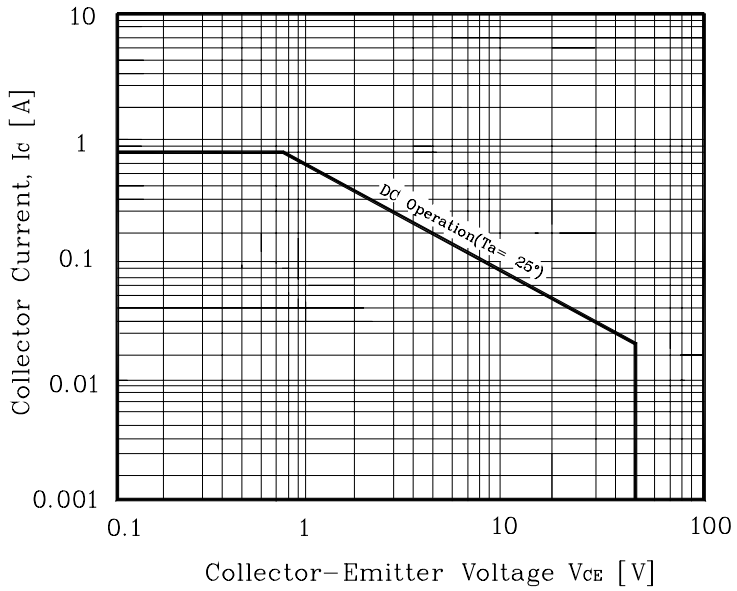


Fig. 6 h_{FE} - I_C

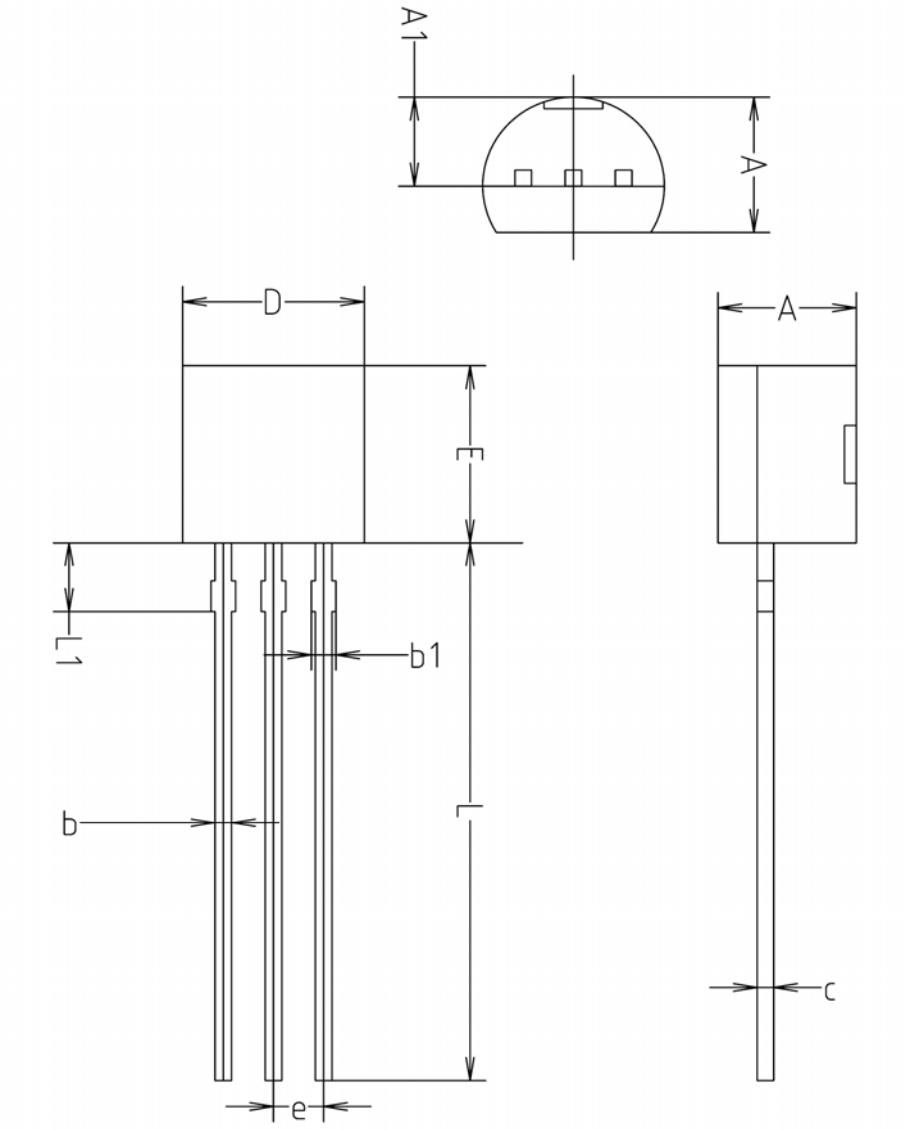


Electrical Characteristic Curves

Fig. 7 Safe operating Area



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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