KODENSHI AUK

STD1862L

NPN Silicon Transistor

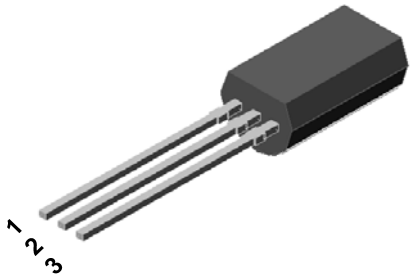
Descriptions

- Audio power amplifier
- High current application

Features

- High current : I_C=2A
- Complementary pair with STB1277L

PIN Connection



TO -92L

1: Emitter 2 :Collector 3: Base

Ordering Information

Type NO.	Marking	Package Code
STD1862L	STD1862	TO-92L

Absolute maximum ratings (Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	30	V
Collector-Emitter voltage	V_{CEO}	30	V
Emitter-Base voltage	V_{EBO}	5	V
Collector current	I_C	2	A
Collector dissipation	P_C	1	W
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	30	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	I_C=10mA, I_B=0	30	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	I_E=1Ma, I_C=0	5	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=30V, I_E=0	-	-	100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=5V, I_C=0	-	-	100	nA
DC current gain	h_{FE}*	V_{CE}=2V, I_C=500mA	100	-	320	-
Base-Emitter on voltage	$V_{BE(on)}$	V_{CE}=2V, I_C=500mA	-	-	1	V
Collector-Emitter saturation voltage	$V_{CE(sat)}$	I_C=2A, I_B=0.2A	-	-	0.8	V
Transition frequency	f_T	V_{CB}=5V, I_C=50mA	-	170	-	MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	48	-	pF

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

Electrical Characteristic Curves

Fig. 1 P_C - T_a

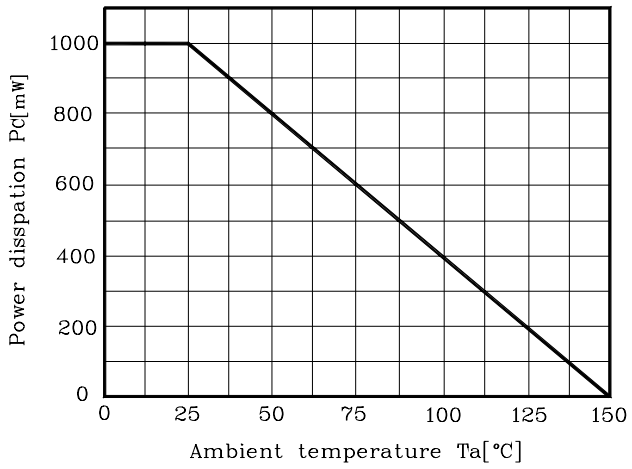


Fig. 2 I_C - V_{BE}

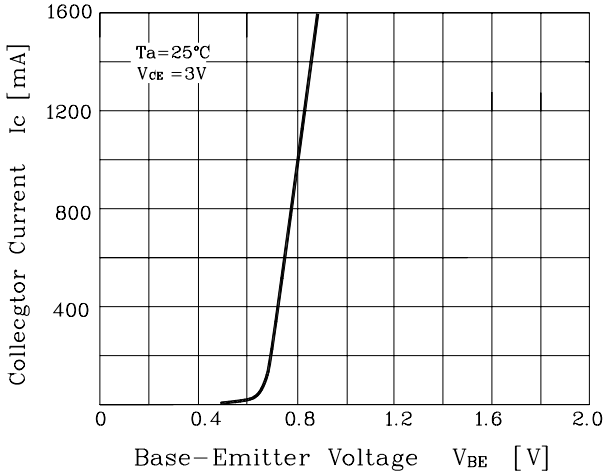


Fig. 3 I_C - V_{CE}

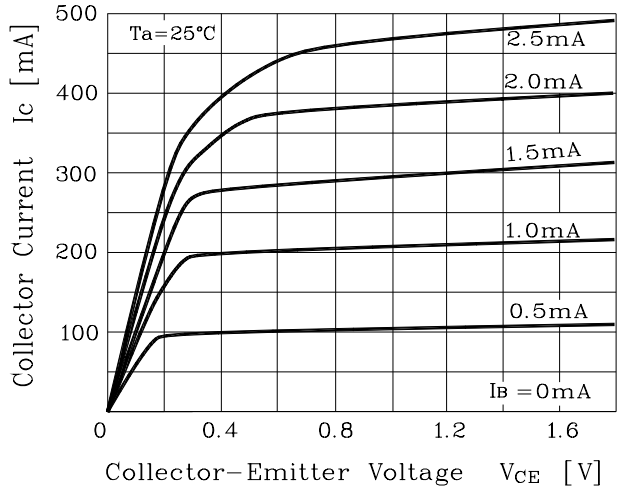


Fig. 4 $V_{CE(sat)}$ - I_C

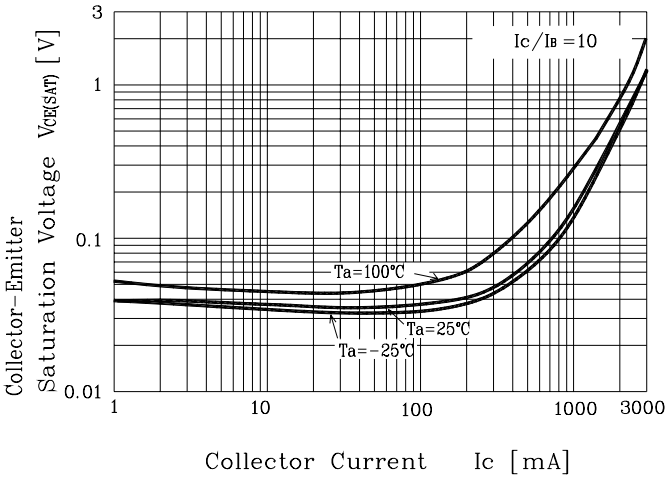
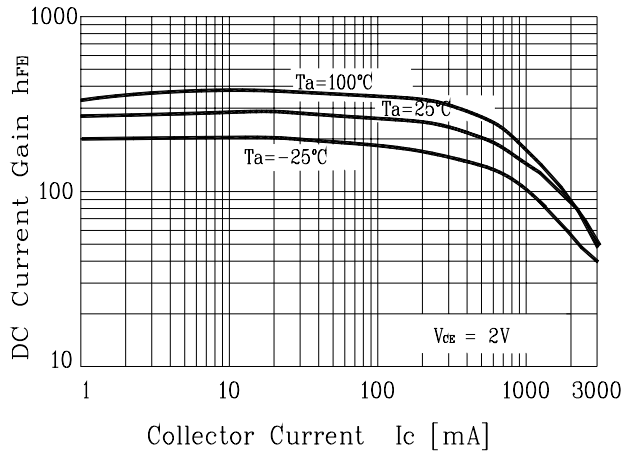
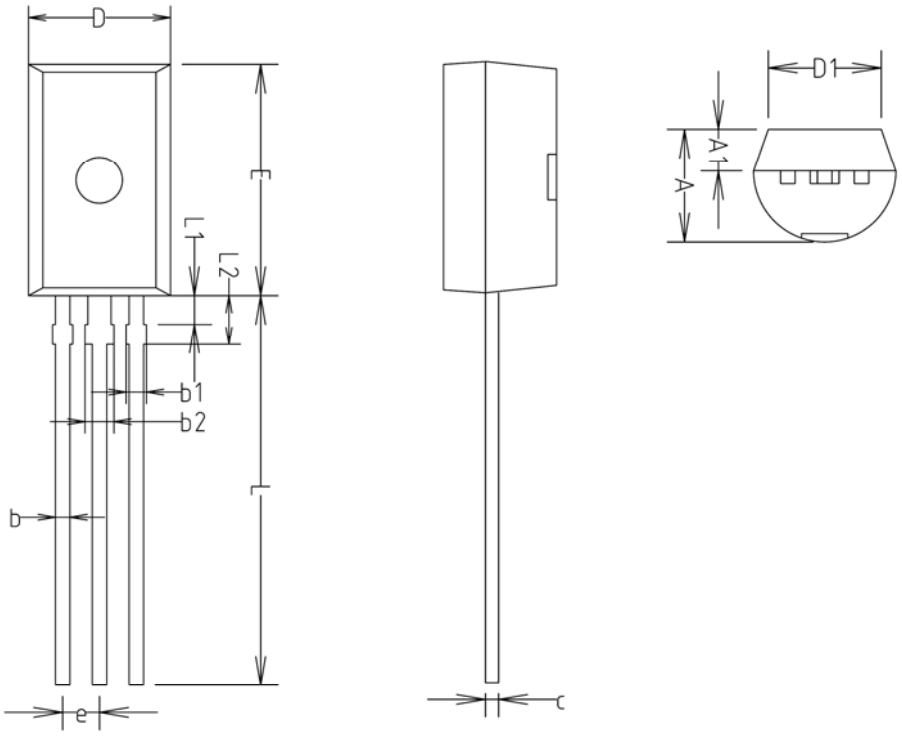


Fig. 5 h_{FE} - I_C



Outline Dimension



SYMBOL	MILLMETERS(mm)			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	3.70	3.90	4.10	
A1	1.25	1.45	1.65	
b	0.40	0.50	0.60	
b1	–	–	0.70	
b2	–	–	1.00	
c	0.35	0.45	0.55	
D	4.70	4.90	5.10	
D1	3.70	3.90	4.10	
E	7.80	8.00	8.20	
e	1.27 TYP			
L	13.10	13.50	13.90	
L1	0.90	1.00	1.10	
L2	1.50	1.70	1.90	

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