

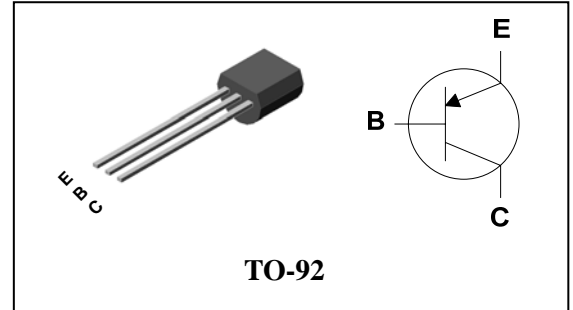
Descriptions

- General purpose application
- Switching application

Features

- Large collector current
- Low collector saturation voltage
- Complementary pair with STN2222A

PIN Connection



Ordering Information

Type NO.	Marking	Package Code
STN2907A	STN2907A	TO-92

Absolute maximum ratings

 $T_a=25^{\circ}\text{C}$

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	-60	V
Collector-Emitter voltage	V_{CEO}	-50	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-600	mA
Collector dissipation	P_C	625	mW
Junction temperature	T_j	150	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-55 ~ 150	$^{\circ}\text{C}$

Electrical Characteristics

 $T_a=25^{\circ}\text{C}$

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	$I_C=-10\mu\text{A}$, $I_E=0$	-60	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	$I_C=-1\text{mA}$, $I_B=0$	-50	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	$I_E=-10\mu\text{A}$, $I_C=0$	-5	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB}=-50\text{V}$, $I_E=0$	-	-	-10	nA
DC current gain	h_{FE}	$V_{CE}=-10\text{V}$, $I_C=-10\text{mA}$	100	-	-	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C=-150\text{mA}$, $I_B=-15\text{mA}$	-	-	-0.4	V
Transistor frequency	f_T	$V_{CE}=-20\text{V}$, $I_C=-20\text{mA}$	200	-	-	MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}$, $I_E=0$, $f=1\text{MHz}$	-	6.0	-	pF

Electrical Characteristic Curves

Fig. 1 P_C - T_a

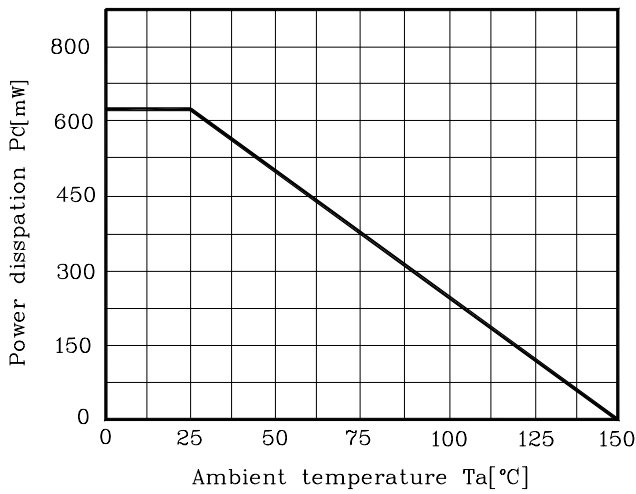


Fig. 2 I_C - V_{BE}

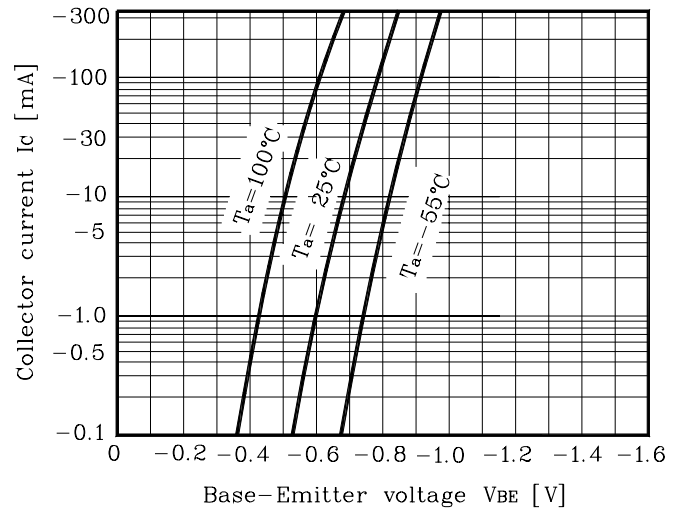


Fig. 3 I_C - V_{CE}

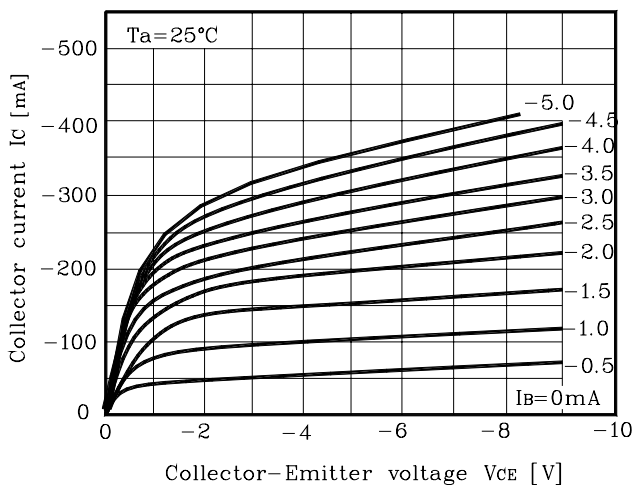


Fig. 4 $V_{CE(sat)}$ - I_C

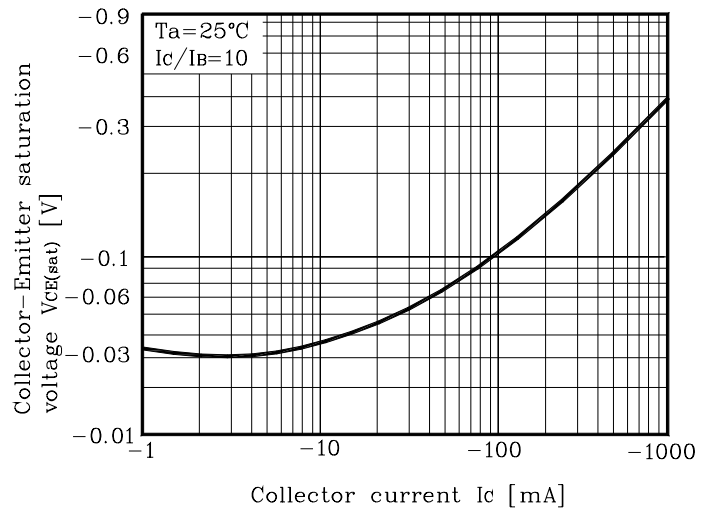


Fig. 5 h_{FE} - I_C

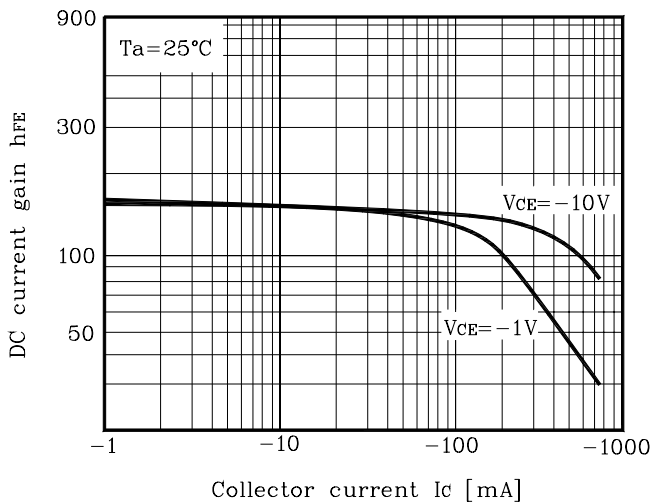
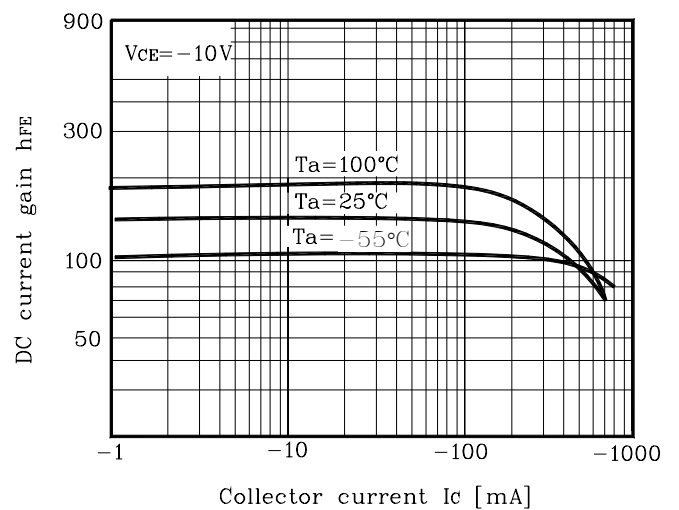
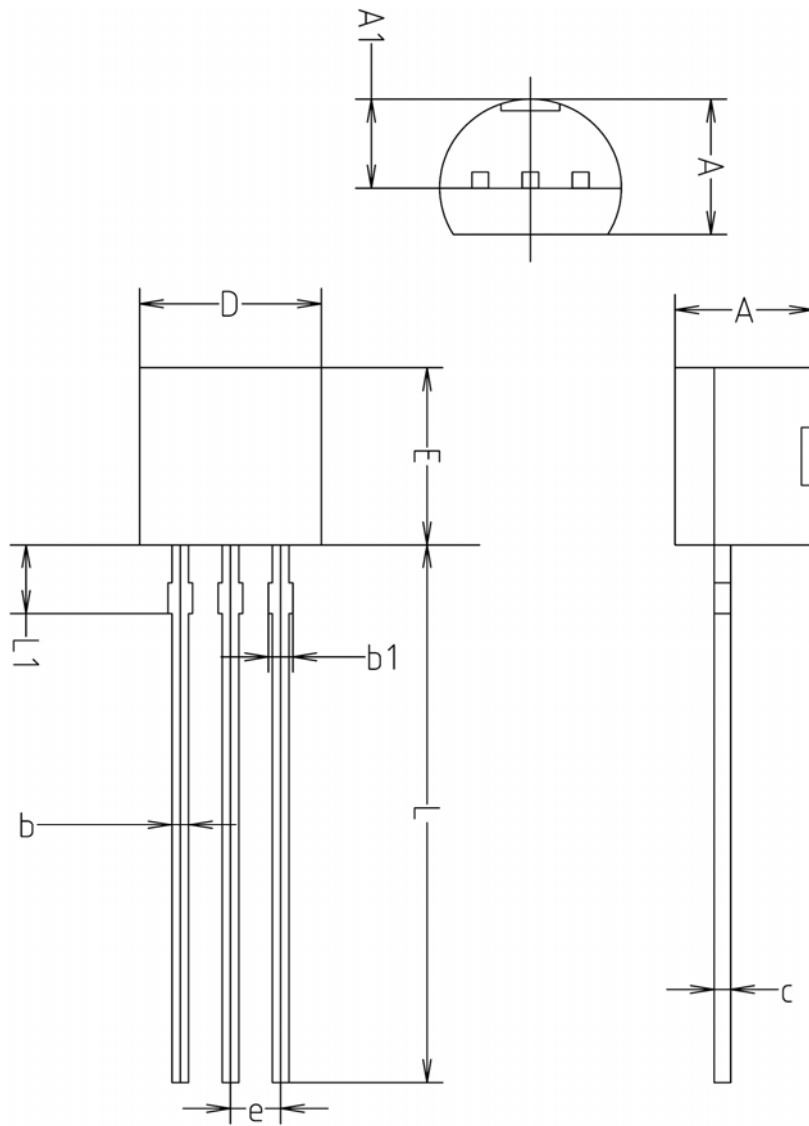


Fig. 6 h_{FE} - I_C



Outline Dimension



SYMBOL	MILLIMETERS(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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