

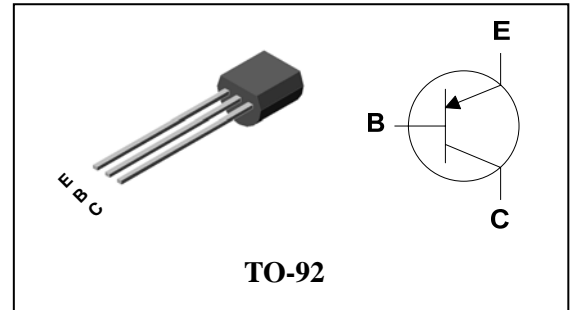
## Descriptions

- 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	$V_{\text{CBO}}$	-60	V
Collector-Emitter voltage	$V_{\text{CEO}}$	-50	V
Emitter-base voltage	$V_{\text{EBO}}$	-5	V
Collector current	$I_{\text{C}}$	-600	mA
Collector dissipation	$P_{\text{C}}$	625	mW
Junction temperature	$T_{\text{j}}$	150	$^{\circ}\text{C}$
Storage temperature	$T_{\text{stg}}$	-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	$BV_{\text{CBO}}$	$I_{\text{C}}=-10\mu\text{A}, I_{\text{E}}=0$	-60	-	-	V
Collector-Emitter breakdown voltage	$BV_{\text{CEO}}$	$I_{\text{C}}=-1\text{mA}, I_{\text{B}}=0$	-50	-	-	V
Emitter-Base breakdown voltage	$BV_{\text{EBO}}$	$I_{\text{E}}=-10\mu\text{A}, I_{\text{C}}=0$	-5	-	-	V
Collector cut-off current	$I_{\text{CBO}}$	$V_{\text{CB}}=-50\text{V}, I_{\text{E}}=0$	-	-	-10	nA
DC current gain	$h_{\text{FE}}$	$V_{\text{CE}}=-10\text{V}, I_{\text{C}}=-10\text{mA}$	100	-	-	-
Collector-Emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}}=-150\text{mA}, I_{\text{B}}=-15\text{mA}$	-	-	-0.4	V
Transistor frequency	$f_{\text{T}}$	$V_{\text{CE}}=-20\text{V}, I_{\text{C}}=-20\text{mA}$	200	-	-	MHz
Collector output capacitance	$C_{\text{ob}}$	$V_{\text{CB}}=-10\text{V}, I_{\text{E}}=0, f=1\text{MHz}$	-	6.0	-	pF

Electrical Characteristic Curves

Fig. 1  $P_C$ - $T_a$

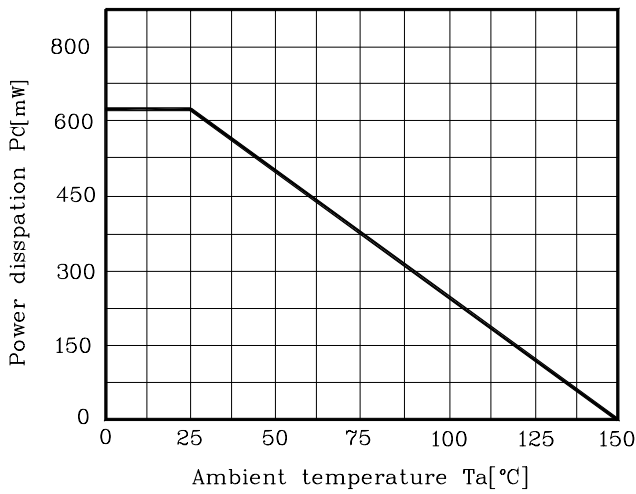


Fig. 2  $I_C$ - $V_{BE}$

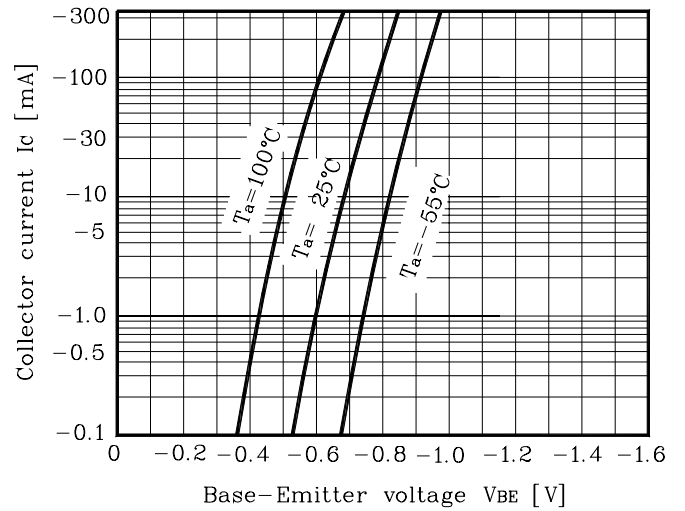


Fig. 3  $I_C$ - $V_{CE}$

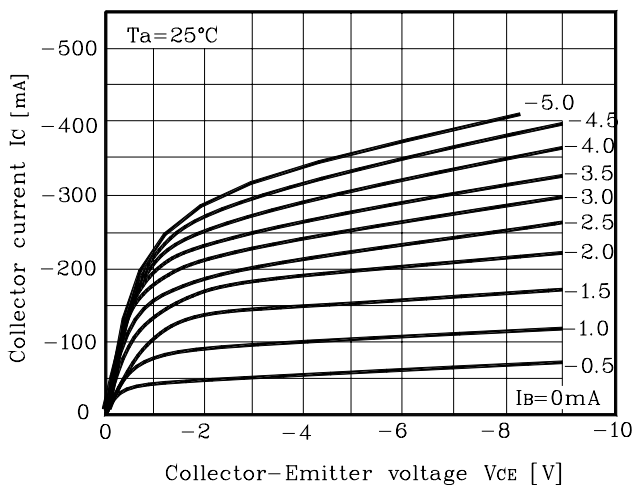


Fig. 4  $V_{CE(sat)}$ - $I_C$

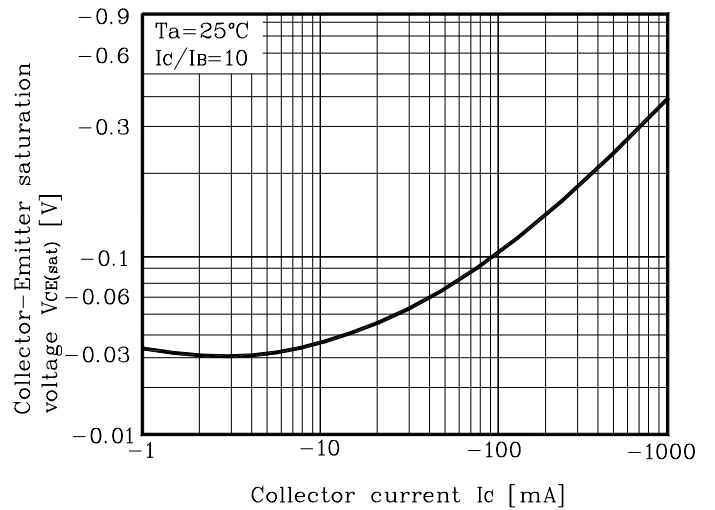


Fig. 5  $h_{FE}$ - $I_C$

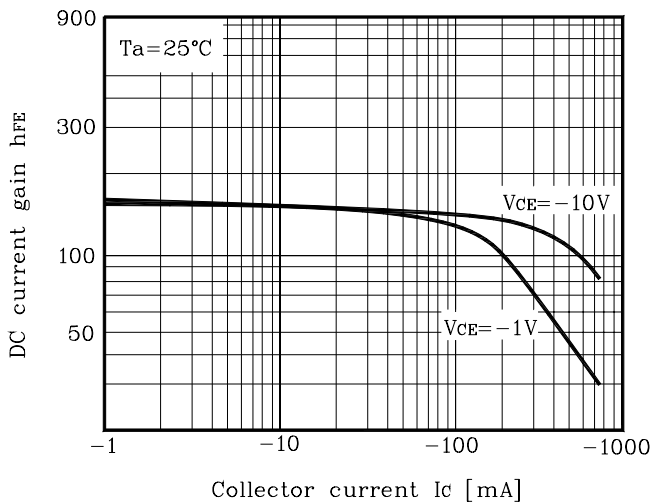
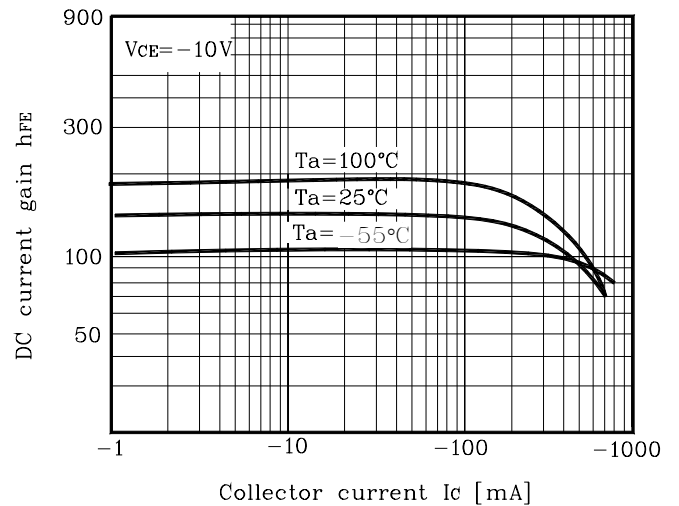
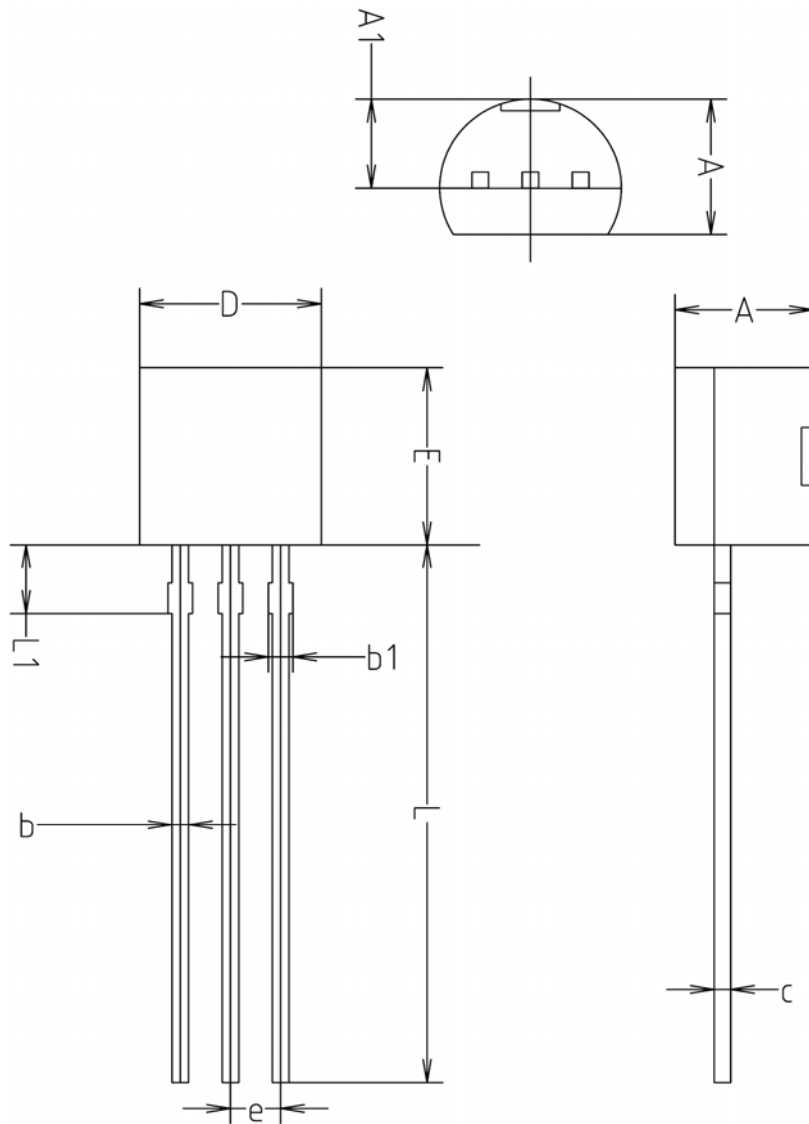


Fig. 6  $h_{FE}$ - $I_C$



Outline Dimension



SYMBOL	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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