

**Descriptions**

- General purpose application
- Switching application

**Features**

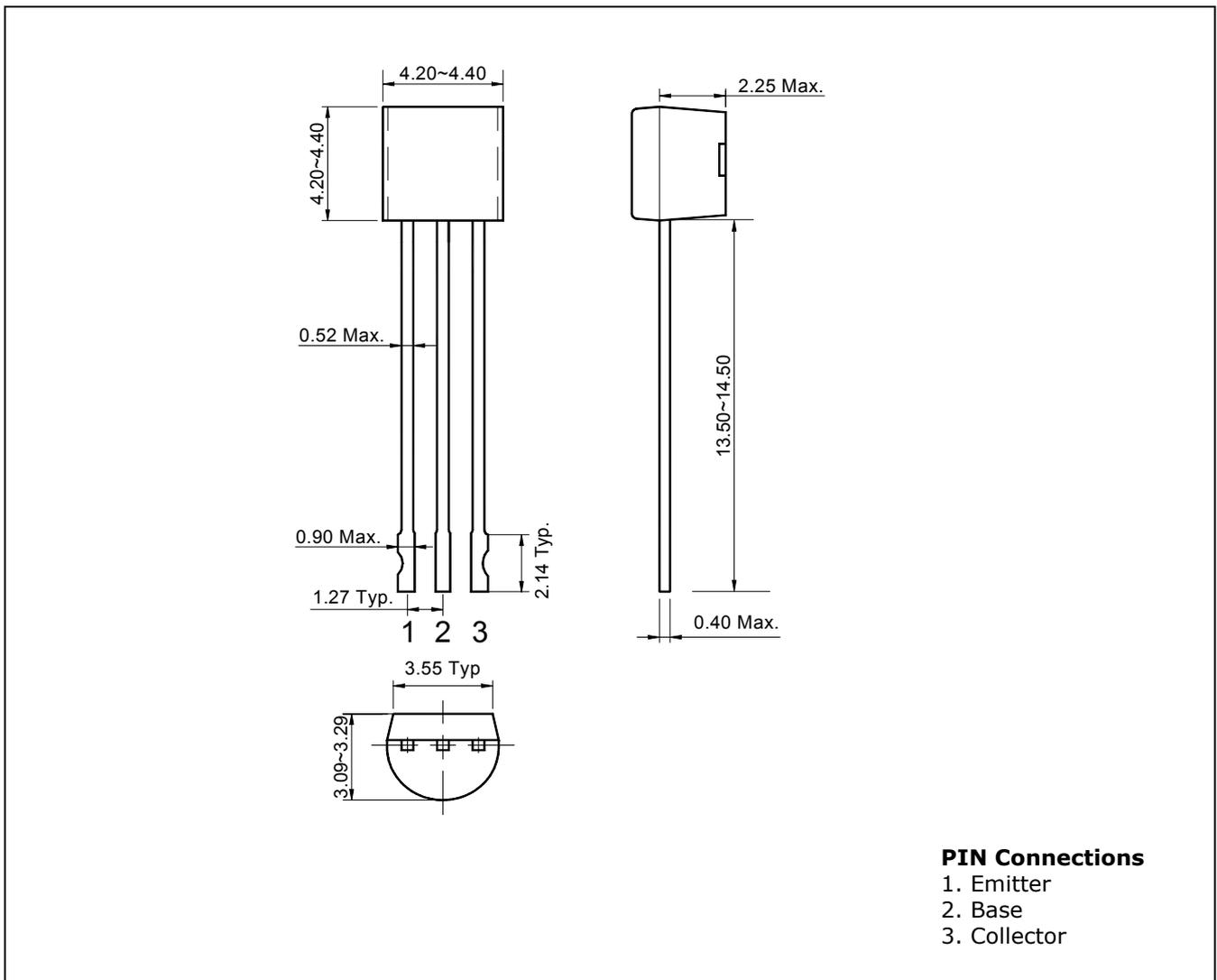
- Large collector current :  $I_C = 600\text{mA}$
- Low collector saturation voltage
- Complementary pair with STA2907AN

**Ordering Information**

Type NO.	Marking	Package Code
STC2222AN	STC2222A	TO-92N

**Outline Dimensions**

unit : mm



## Absolute maximum ratings

Ta=25°C

Characteristic	Symbol	Ratings	Unit
Collector-base voltage	V <sub>CBO</sub>	75	V
Collector-emitter voltage	V <sub>CEO</sub>	40	V
Emitter-base voltage	V <sub>EBO</sub>	5	V
Collector current	I <sub>C</sub>	600	mA
Collector power dissipation	P <sub>C</sub>	400	mW
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55~150	°C

## Electrical Characteristics

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-emitter breakdown voltage	BV <sub>CEO</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0	40	-	-	V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =75V, I <sub>E</sub> =0	-	-	50	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0	-	-	50	nA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA	75	-	-	-
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA	-	-	0.4	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA	-	0.65	0.85	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =20V, I <sub>C</sub> =20mA	-	200	-	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz	-	6.0	-	pF

Electrical Characteristic Curves

Fig. 1  $P_C - T_a$

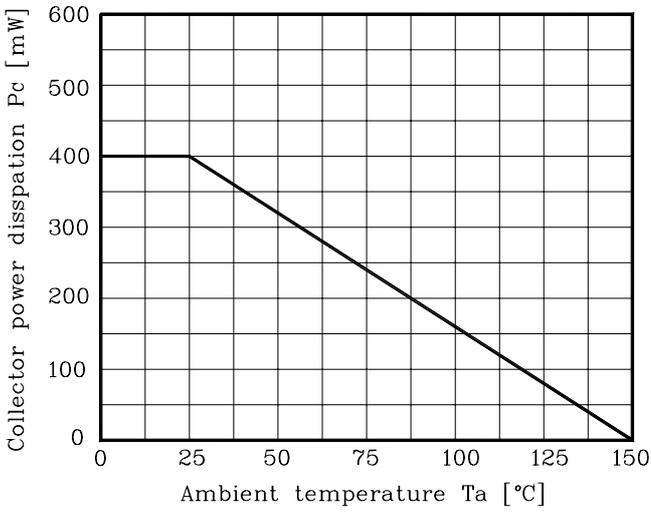


Fig. 2  $I_C - V_{BE}$

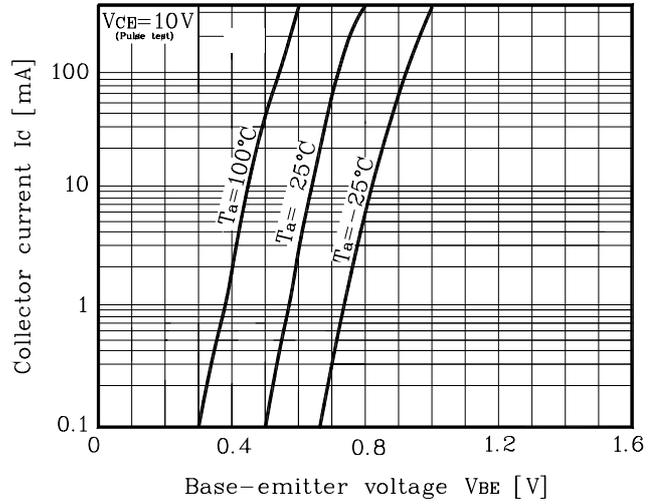


Fig. 3  $I_C - V_{CE}$

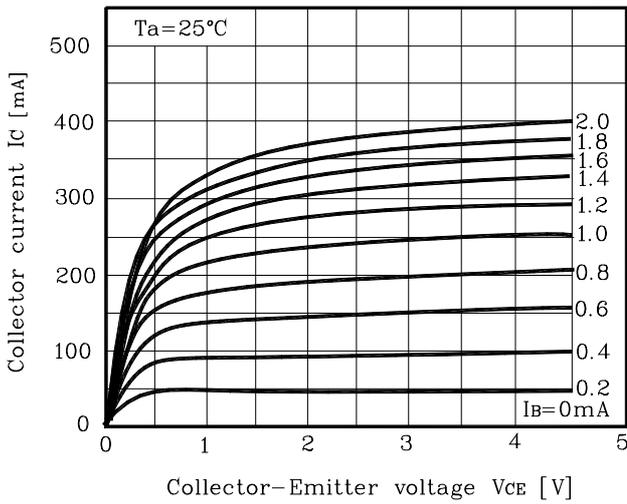


Fig. 4  $V_{CE(sat)} - I_C$

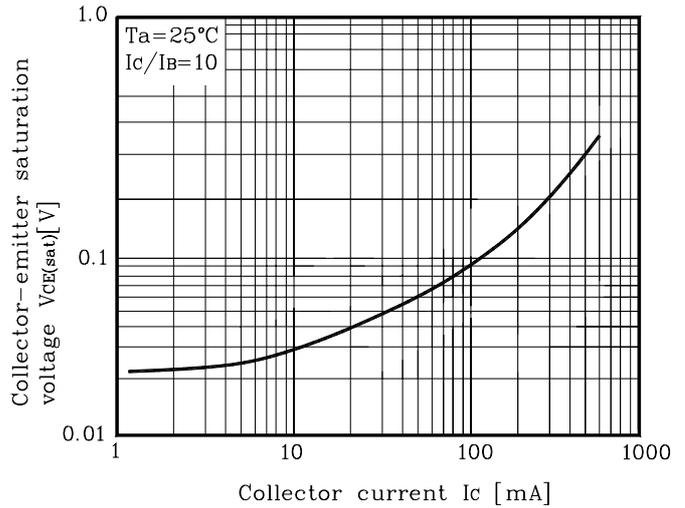


Fig. 5  $h_{FE} - I_C$

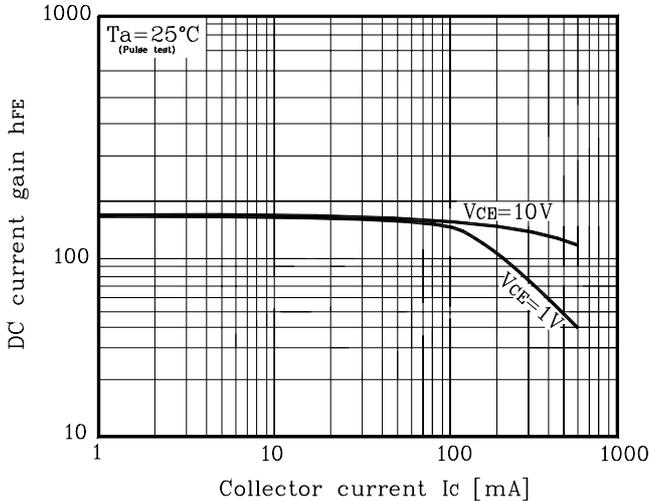
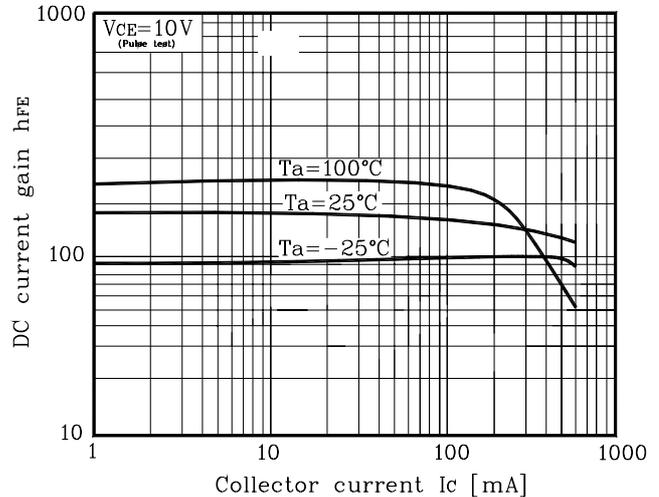


Fig. 6  $h_{FE} - I_C$



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