

Descriptions

- General purpose application
- Switching application

Features

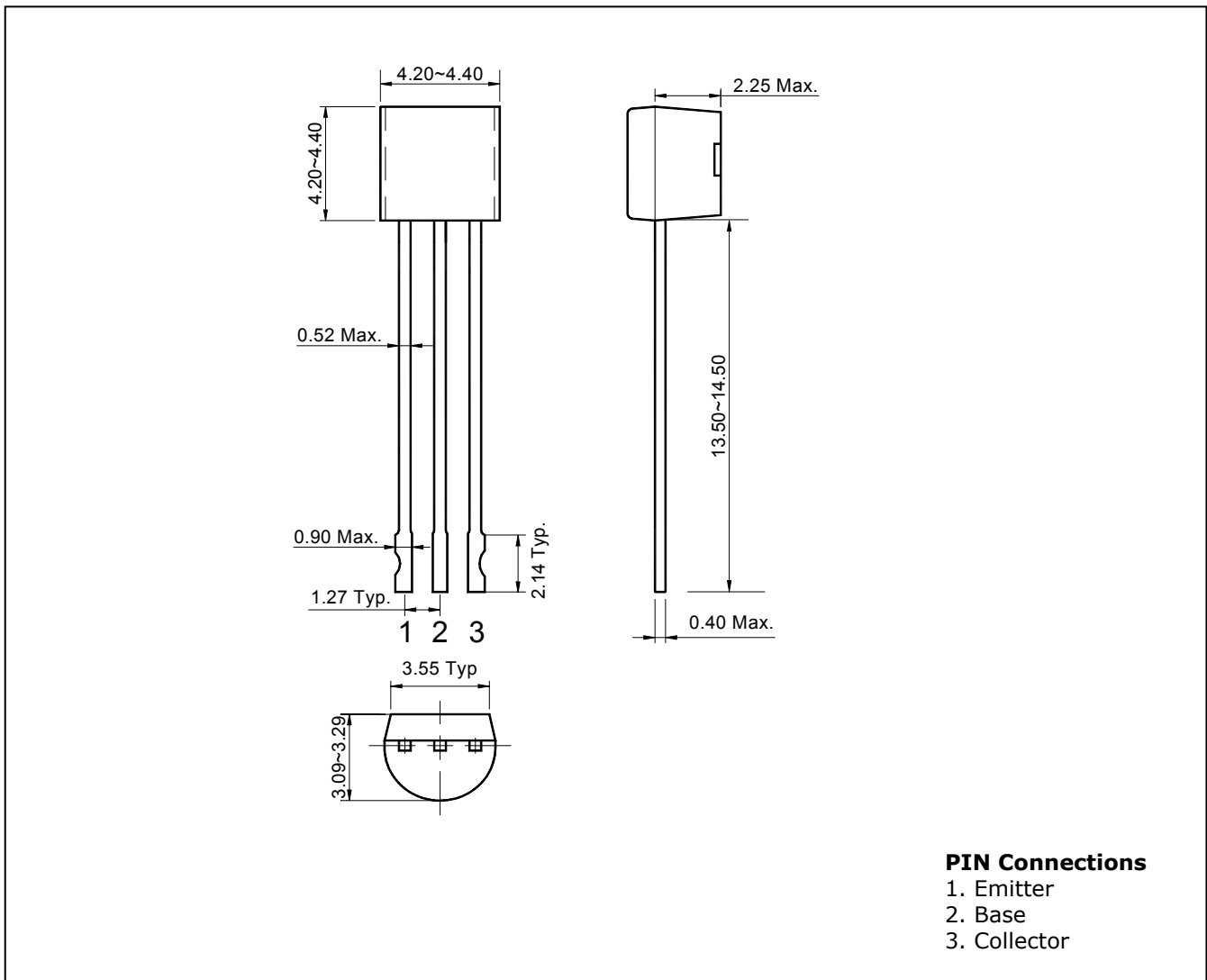
- Large collector current : $I_C = -600\text{mA}$
- Low collector saturation voltage
- Complementary pair with STC2222AN

Ordering Information

Type NO.	Marking	Package Code
STA2907AN	STA2907A	TO-92N

Outline Dimensions

unit : mm



Absolute Maximum Ratings

Ta=25°C

Characteristic	Symbol	Rating	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 power dissipation	P _C	400	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-emitter breakdown voltage	BV _{CEO}	I _C =-1mA, I _B =0	-50	-	-	V
Collector cut-off current	I _{CBO}	V _{CB} =-60V, I _E =0	-	-	-50	nA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0	-	-	-50	nA
DC current gain	h _{FE}	V _{CE} =-10V, I _C =-10mA	100	-	-	-
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-150mA, I _B =-15mA	-	-	-0.4	V
Base-emitter voltage	V _{BE}	V _{CE} =-10V, I _C =-10mA	-	-0.66	-0.85	V
Transition frequency	f _T	V _{CE} =-20V, I _C =-20mA	-	250	-	MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz	-	6.0	-	pF

Electrical Characteristic Curves

Fig. 1 $P_C - T_a$

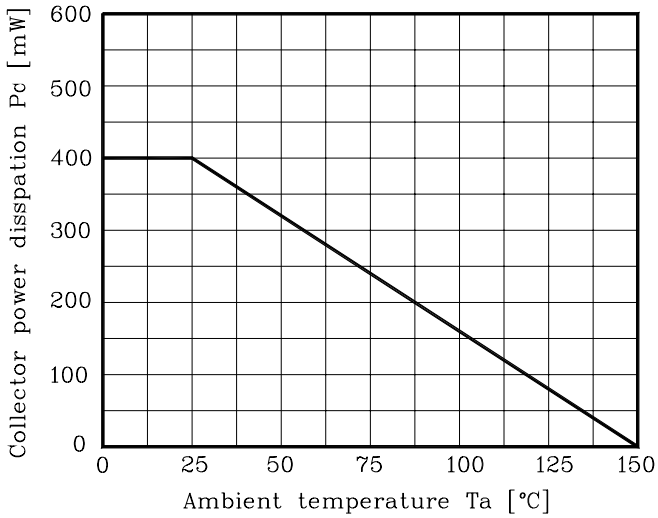


Fig. 2 $I_C - V_{BE}$

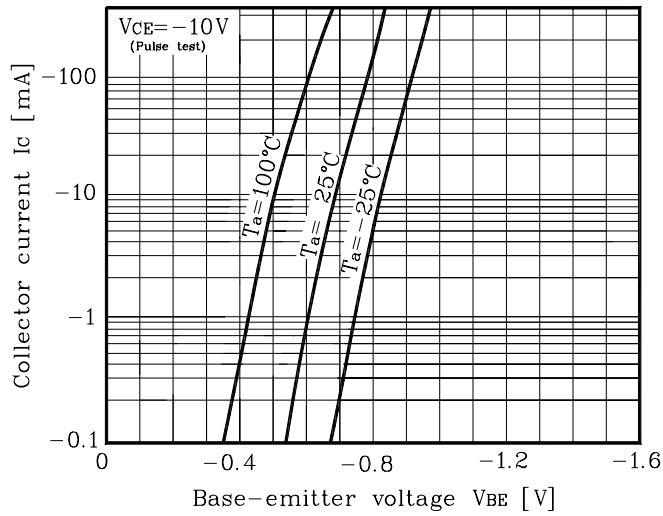


Fig. 3 $I_C - V_{CE}$

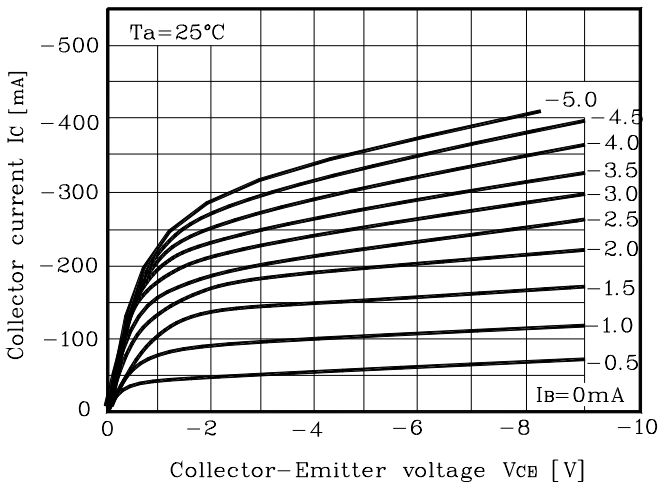


Fig. 4 $V_{CE(sat)} - I_C$

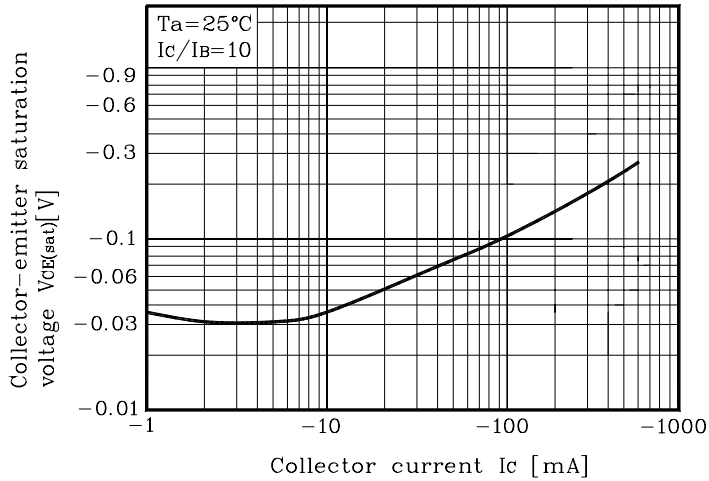


Fig. 5 $h_{FE} - I_C$

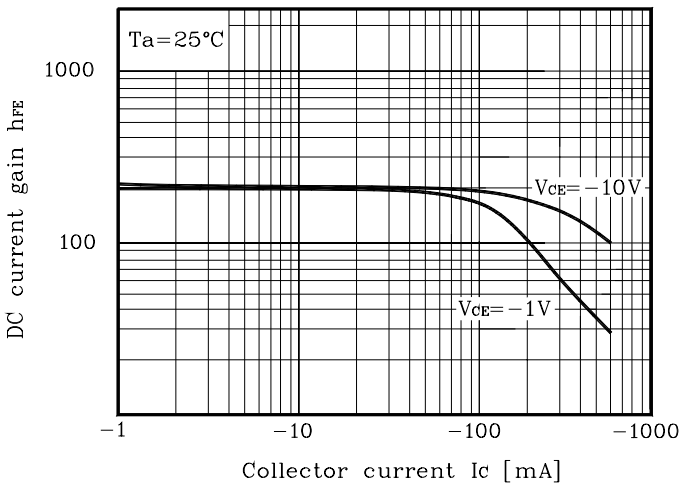
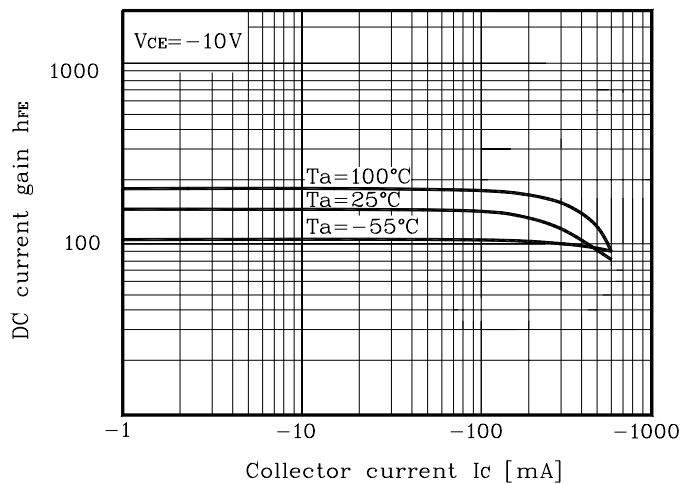


Fig. 6 $h_{FE} - I_C$



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