

## Descriptions

- High current application
- Radio in class B push-pull operation

## Feature

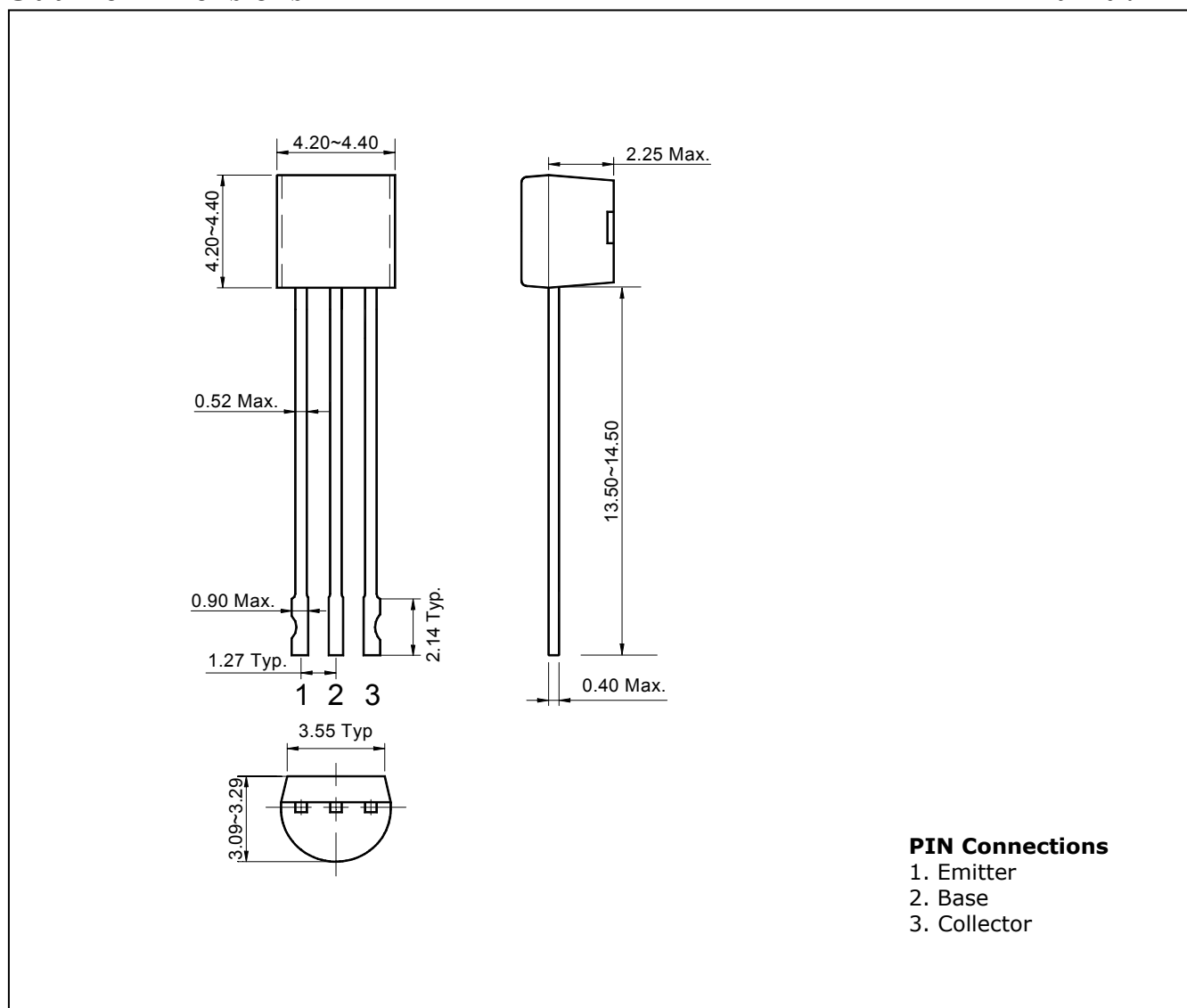
- Complementary pair with STA8550N

## Ordering Information

Type NO.	Marking	Package Code
STC8050N	STC8050	TO-92N

## Outline Dimensions

unit : mm



## Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	30	V
Collector-emitter voltage	$V_{CEO}$	25	V
Emitter-base voltage	$V_{EBO}$	6	V
Collector current	$I_C$	800	mA
Emitter current	$I_E$	-800	mA
Collector power dissipation	$P_C$	500	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	$BV_{CEO}$	$I_C=1mA, I_B=0$	25	-	-	V
Collector cut-off current	$I_{CBO}$	$V_{CB}=30V, I_E=0$	-	-	50	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB}=6V, I_C=0$	-	-	50	nA
DC current gain	$h_{FE}^*$	$V_{CE}=1V, I_C=50mA$	85	-	300	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$	-	-	0.5	V
Base-emitter voltage	$V_{BE}$	$V_{CE}=1V, I_C=500mA$	-	0.85	1.2	V
Transition frequency	$f_T$	$V_{CE}=5V, I_C=10mA$	-	180	-	MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0$	-	19	-	pF

\* :  $h_{FE}$  Rank / B : 85~160, C : 120~200, D : 160~300

Electrical Characteristic Curves

Fig. 1  $P_c - T_a$

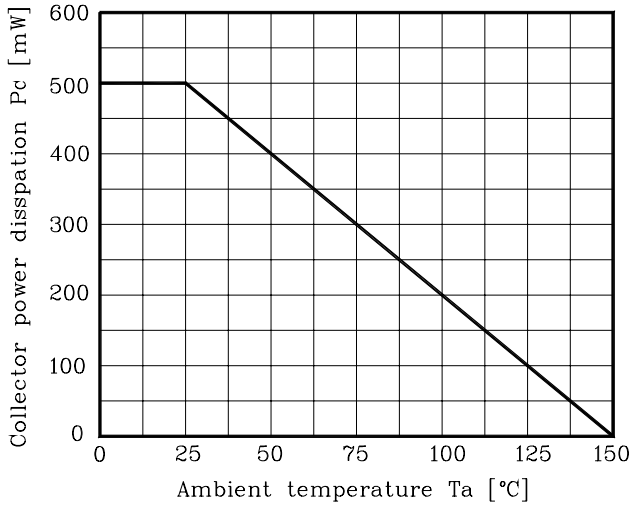


Fig. 2  $I_c - V_{BE}$

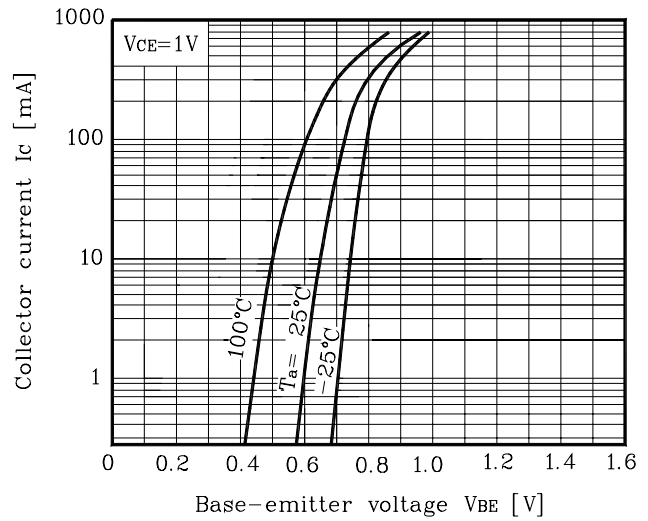


Fig. 3  $I_c - V_{CE}$

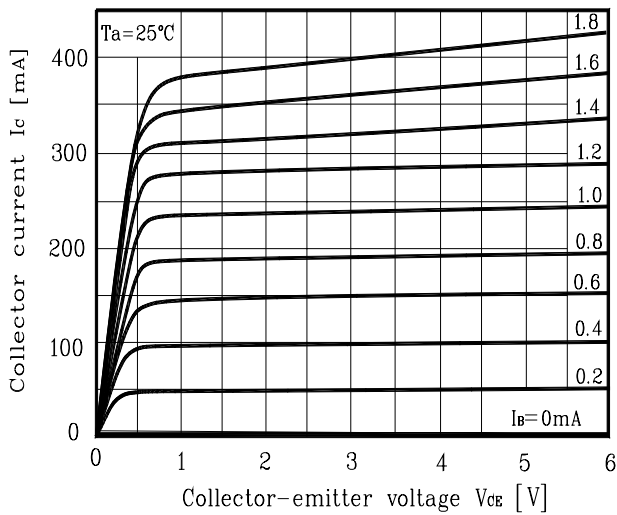


Fig. 4  $V_{CE(SAT)} - I_c$

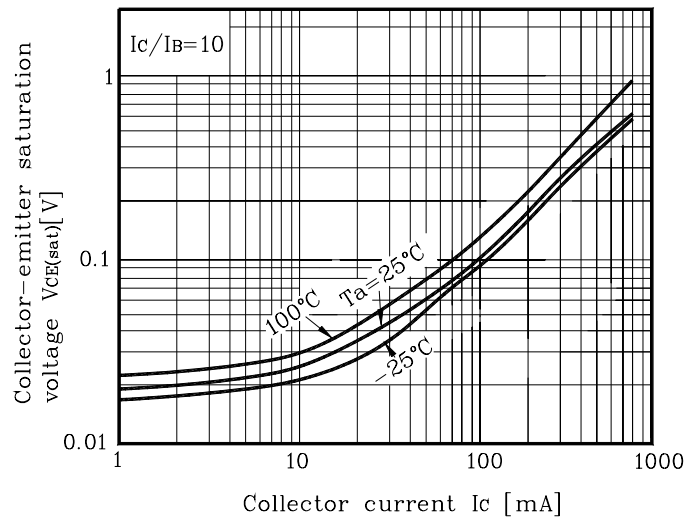


Fig. 5  $h_{FE} - I_c$

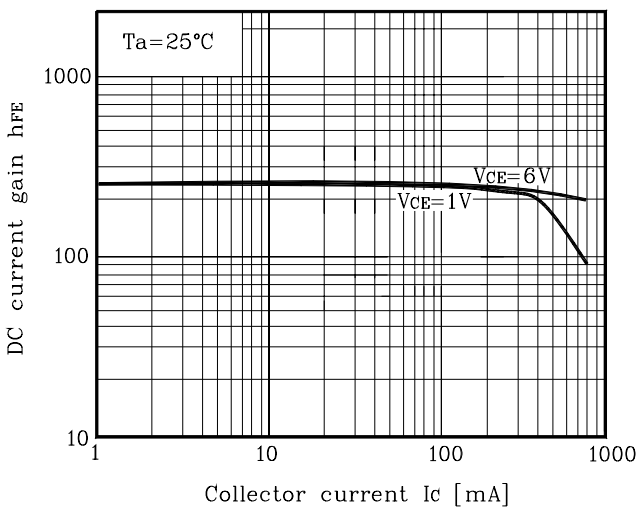
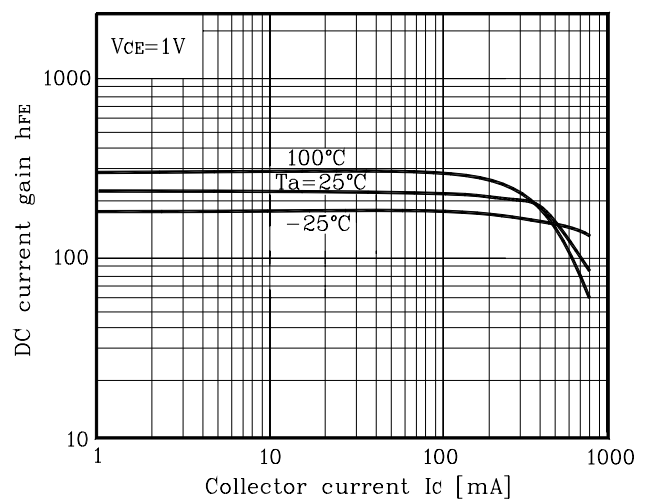


Fig. 6  $h_{FE} - I_c$



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