

**Descriptions**

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

**Feature**

- Complementary pair with STC8050SF

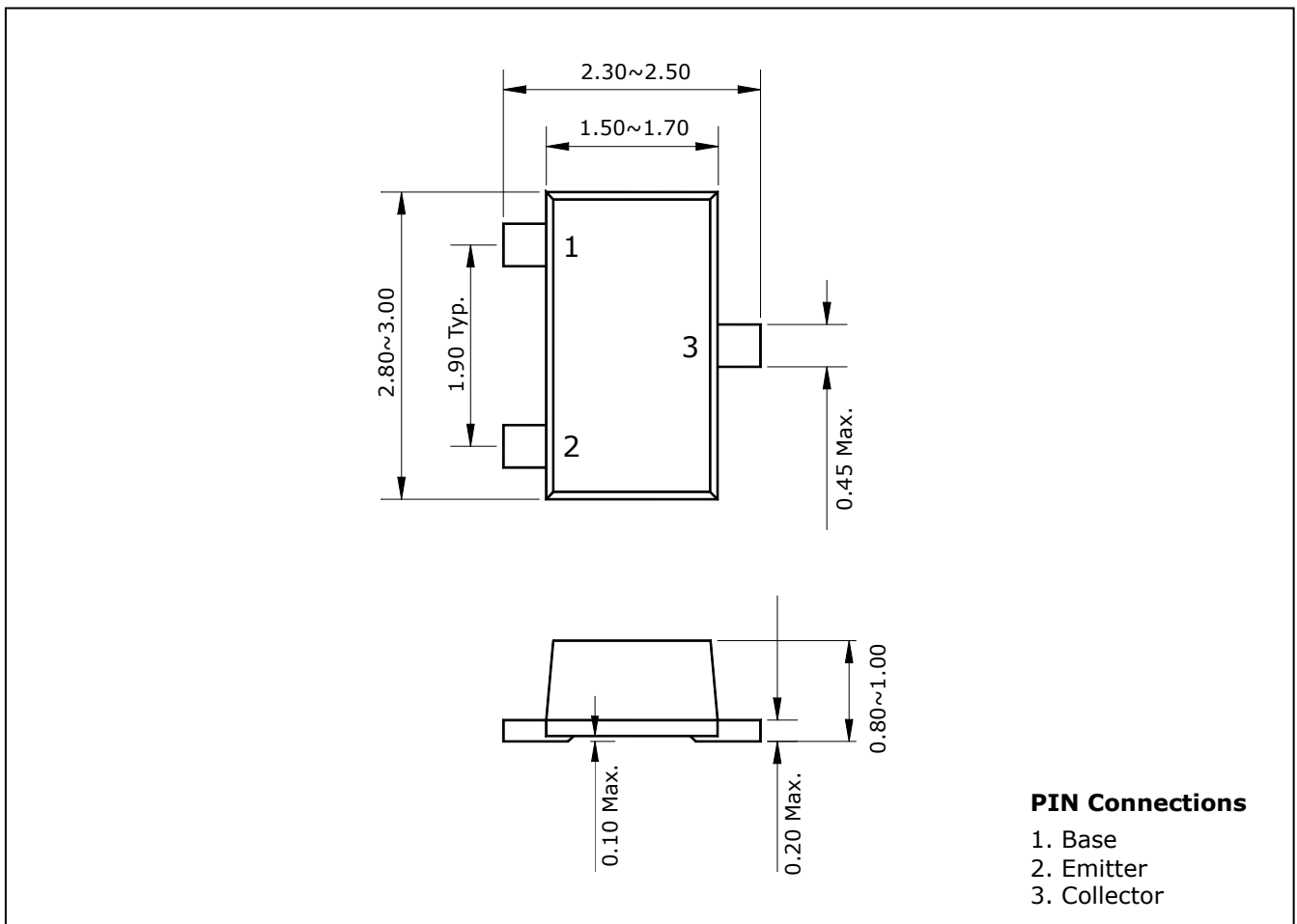
**Ordering Information**

Type NO.	Marking	Package Code
STA8550SF	8B□	SOT-23F

□ : h<sub>FE</sub> rank

**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
Collector power dissipation	$P_C^*$	350	mW
Junction temperature	$T_J$	150	°C
Storage temperature range	$T_{stg}$	-55~150	°C

\* : Package mounted on 99.5% Alumina 10×8×0.6mm

## Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-emitter breakdown voltage	$BV_{CEO}$	$I_C = -1\text{mA}, I_B = 0$	-25	-	-	V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -30\text{V}, I_E = 0$	-	-	-50	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -6\text{V}, I_C = 0$	-	-	-50	nA
DC current gain	$h_{FE}^*$	$V_{CE} = -1\text{V}, I_C = -50\text{mA}$	85	-	300	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$	-	-	-0.5	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = -1\text{V}, I_C = -500\text{mA}$	-	-0.85	-1.2	V
Transition frequency	$f_T$	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$	-	200	-	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$	-	19	-	pF

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

Electrical Characteristic Curves

Fig. 1  $P_c - T_a$

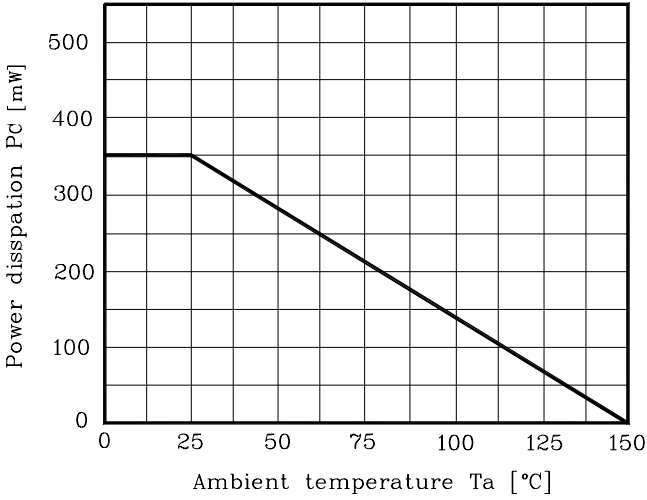


Fig. 2  $I_c - V_{BE}$

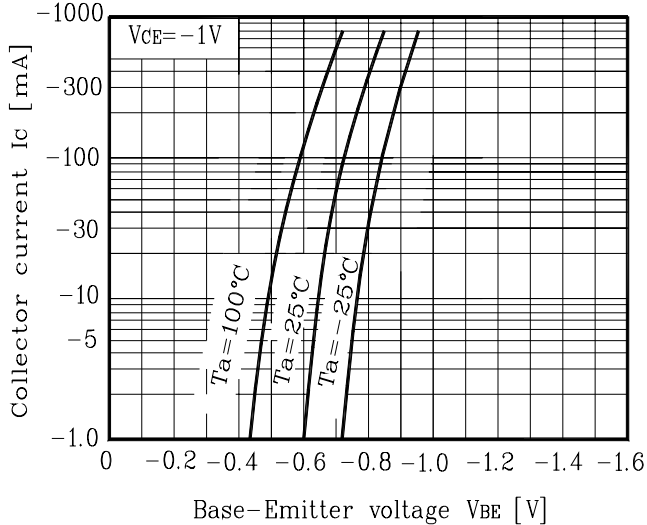


Fig. 3  $I_c - V_{CE}$

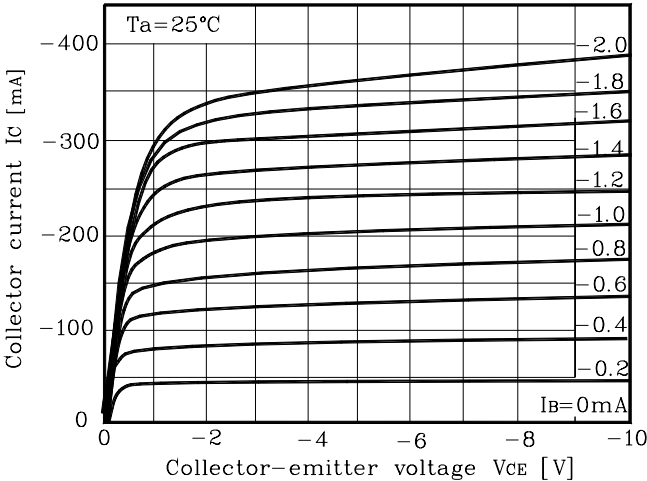


Fig. 4  $V_{CE(SAT)} - I_c$

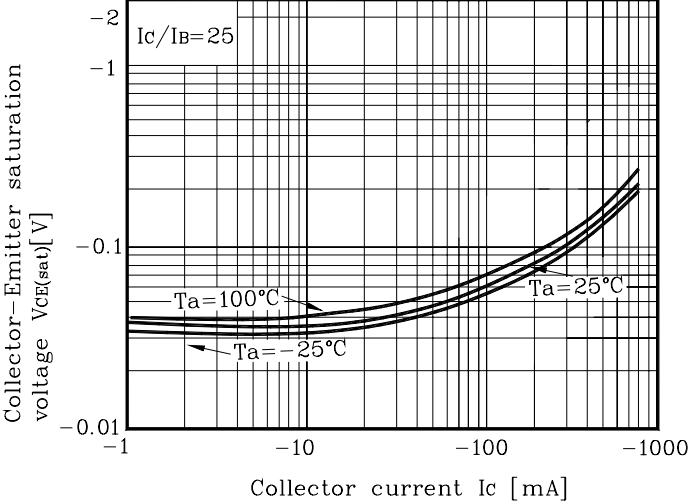


Fig. 5  $h_{FE} - I_c$

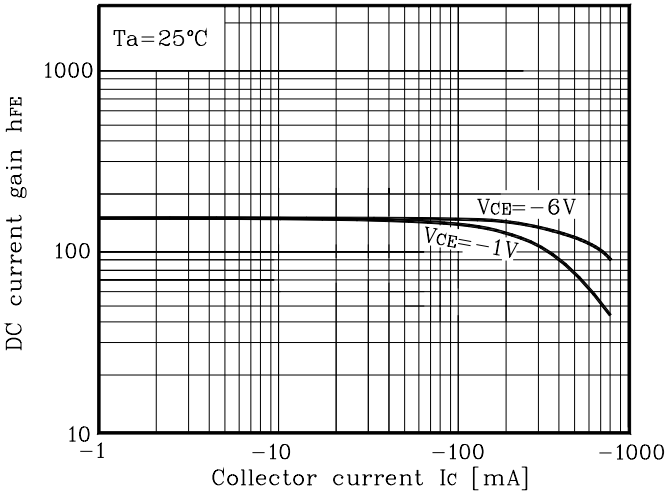
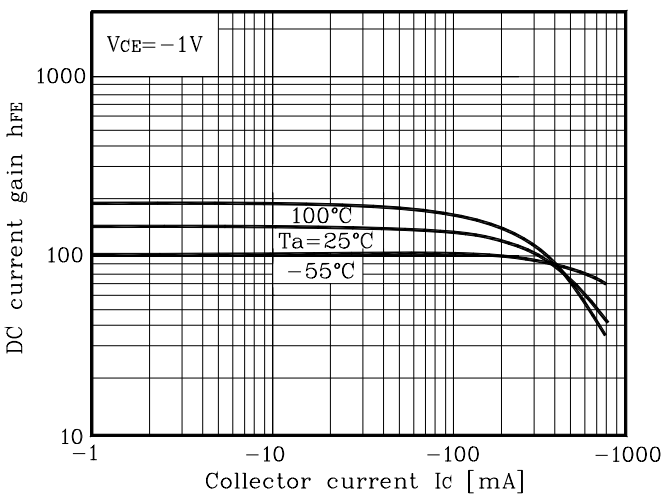


Fig. 6  $h_{FE} - I_c$



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