

## Descriptions

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

## Feature

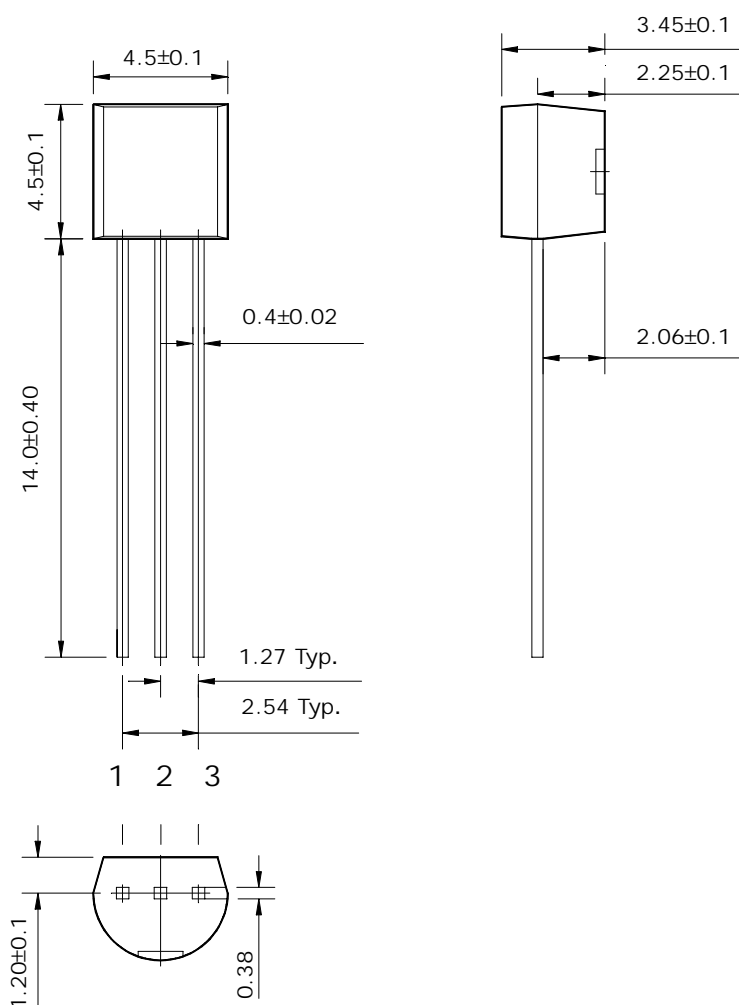
- Complementary pair with STS8050

## Ordering Information

Type NO.	Marking	Package Code
STS8550	STS8550	TO-92

## Outline Dimensions

unit : mm



### PIN Connections

1. Emitter
2. Base
3. Collector

## Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Ratings	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 dissipation	$P_C$	625	mW
Junction temperature	$T_J$	150	°C
Storage temperature	$T_{stg}$	-55 ~ 150	°C

## Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	$BV_{CBO}$	$I_C = -500\mu A, I_E = 0$	-30	-	-	V
Collector-Emitter breakdown voltage	$BV_{CEO}$	$I_C = -1mA, I_B = 0$	-25	-	-	V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -15V, I_E = 0$	-	-	-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	$V_{BE}$	$V_{CE} = -1V, I_C = -500mA$	-	-	-1.2	V
Transition frequency	$f_T$	$V_{CE} = -5V, I_C = -10mA$	-	120	-	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	19	-	pF

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

# Electrical Characteristic Curves

Fig. 1  $P_c - T_a$

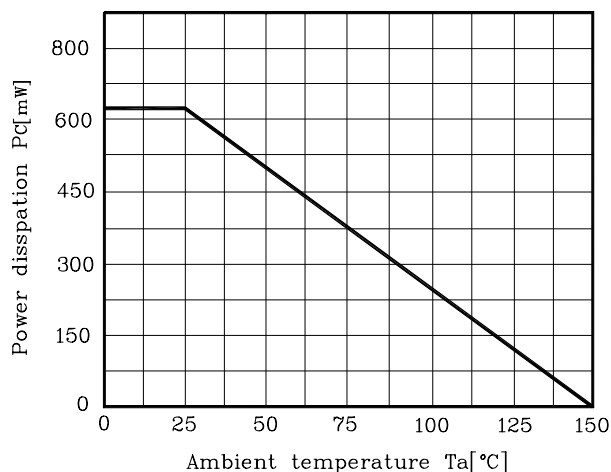


Fig. 2  $I_c - V_{BE}$

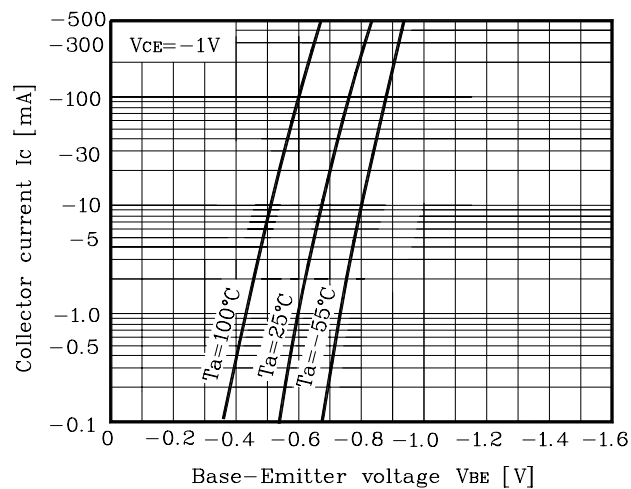


Fig. 3  $I_c - V_{CE}$

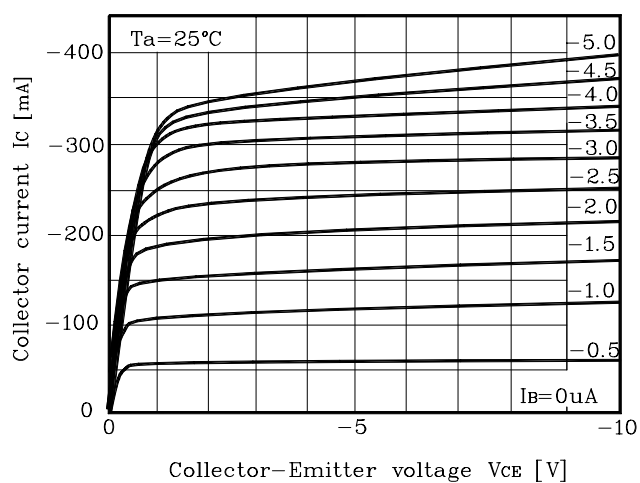


Fig. 4  $V_{CE(SAT)} - I_c$

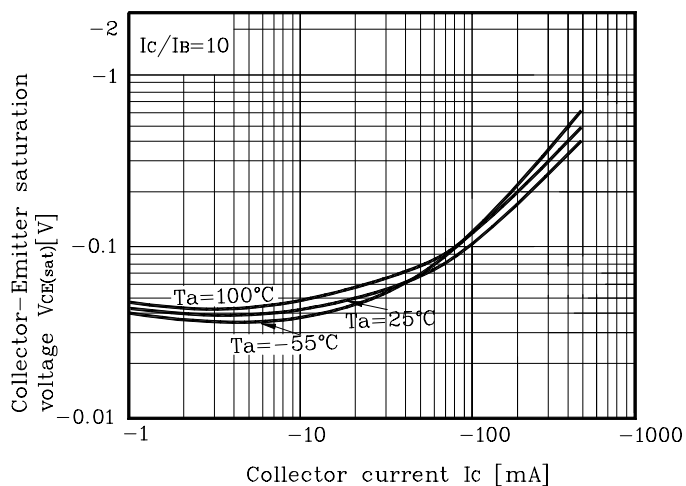


Fig. 5  $h_{FE} - I_c$

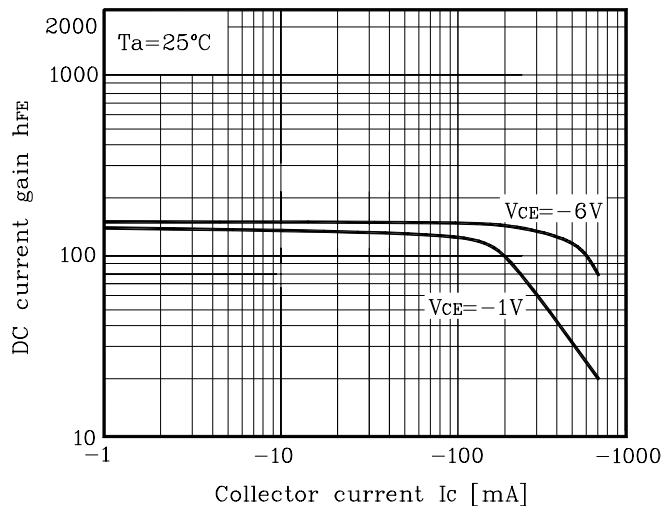


Fig. 6  $h_{FE} - I_c$

