



# STC352

NPN Silicon Transistor

## Descriptions

- High current application
- Audio power amplifier

## Features

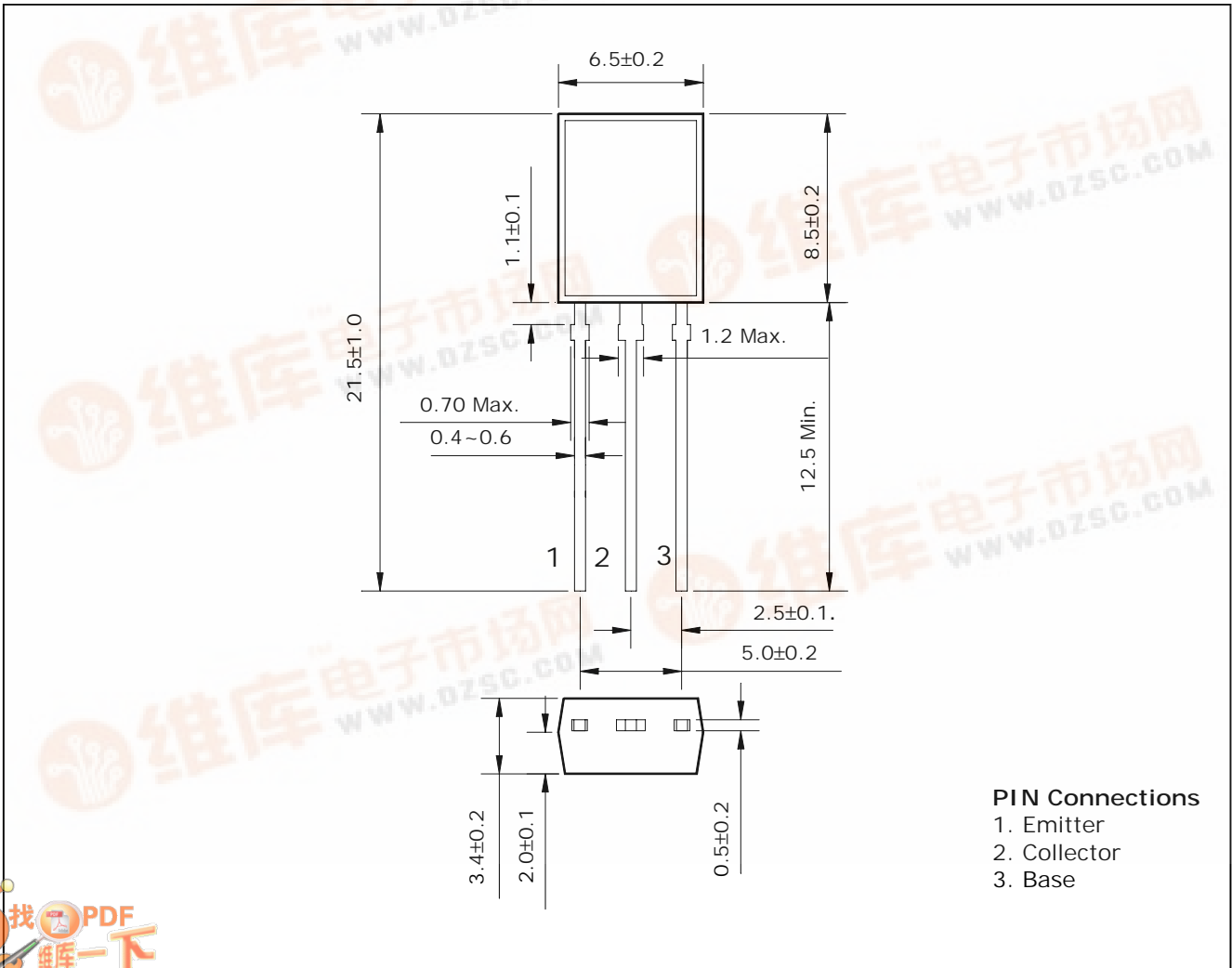
- High current :  $I_C = 2A$
- Complementary pair with STA353

## Ordering Information

Type NO.	Marking	Package Code
STC352	STC352	MPT

## Outline Dimensions

unit : mm



# STC352

## Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	$V_{CBO}$	40	V
Collector-Emitter voltage	$V_{CEO}$	30	V
Emitter-Base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	2	A
Emitter Current	$I_E$	-2	A
Collector dissipation	$P_C$	1.2	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 ~ 150	°C

## Electrical Characteristics

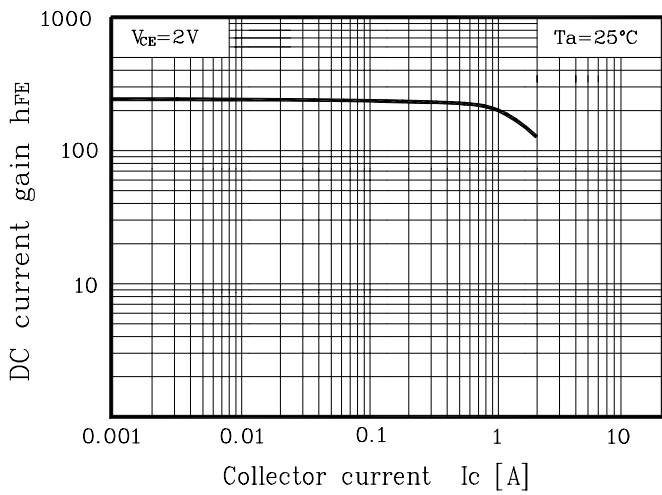
(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	$BV_{CBO}$	$I_C=100\mu A, I_E=0$	40	-	-	V
Collector-Emitter breakdown voltage	$BV_{CEO}$	$I_C=10mA, I_B=0$	30	-	-	V
Emitter-Base breakdown voltage	$BV_{EBO}$	$I_E=1mA, I_C=0$	5	-	-	V
Collector cut-off current	$I_{CBO}$	$V_{CB}=40V, I_E=0$	-	-	0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	0.1	$\mu A$
DC current gain	$h_{FE}^*$	$V_{CE}=2V, I_C=500mA$	100	-	320	-
Base-Emitter on voltage	$V_{BE(ON)}$	$V_{CE}=2V, I_C=500mA$	-	-	1	V
Collector-Emitter saturation voltage	$V_{CE(sat)1}$	$I_C=2A, I_B=0.2A$	-	-	0.8	V
	$V_{CE(sat)2}$	$I_C=1.5A, I_B=0.03A$	-	-	2	
Transition frequency	$f_T$	$V_{CE}=5V, I_C=500mA$	-	120	-	MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	13	-	pF

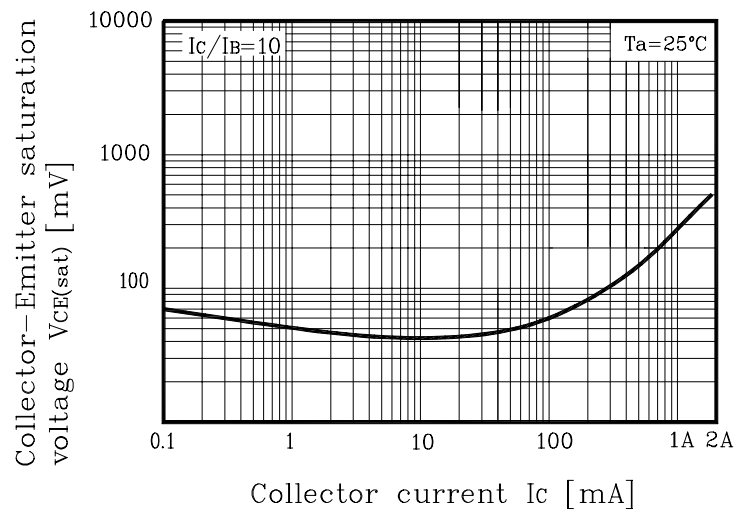
\* :  $h_{FE}$  rank / O : 100~200, Y : 160~320

## Electrical Characteristic Curves

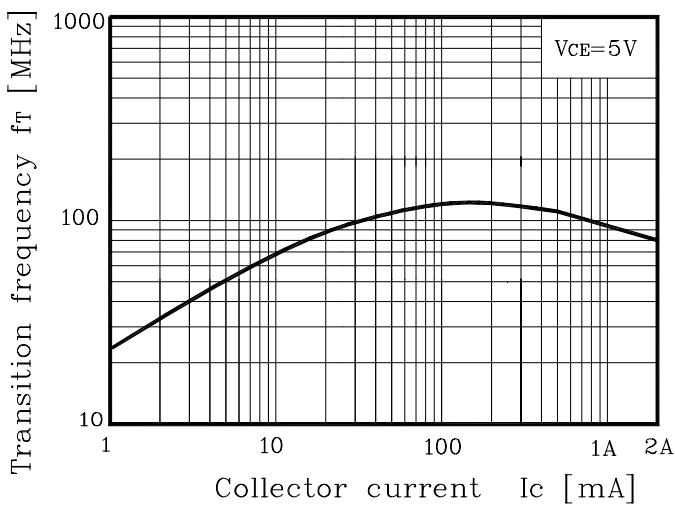
**Fig. 1  $h_{FE} - I_C$**



**Fig. 2  $V_{CE(sat)} - I_C$**



**Fig. 3  $f_T - I_C$**



**Fig. 4  $C_{ob} - V_R$**

