



# STC344

NPN Silicon Transistor

## Descriptions

- High voltage application
- Color TV horizontal driver application
- Color TV chroma output application

## Features

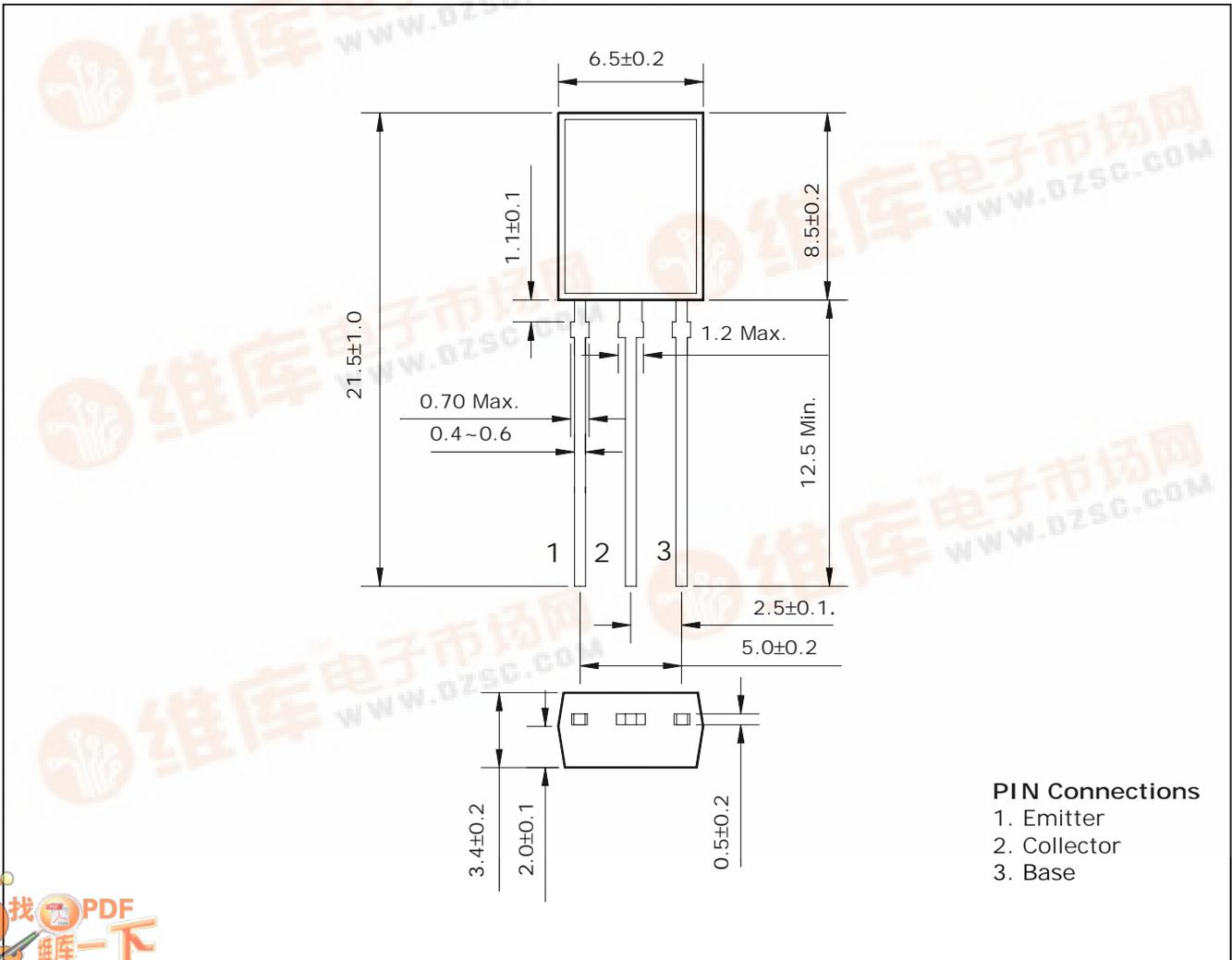
- Collector-Emitter voltage  $V_{CEO} = 300V$
- Complementary pair with STA343

## Ordering Information

Type NO.	Marking	Package Code
STC344	STC344	MPT

## Outline Dimensions

unit : mm



# STC344

## Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	$V_{CBO}$	300	V
Collector-Emitter voltage	$V_{CEO}$	300	V
Emitter-Base voltage	$V_{EBO}$	7	V
Collector current	$I_C$	100	mA
Emitter Current	$I_E$	-100	mA
Collector dissipation	$P_C$	1.2	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 ~ 150	°C

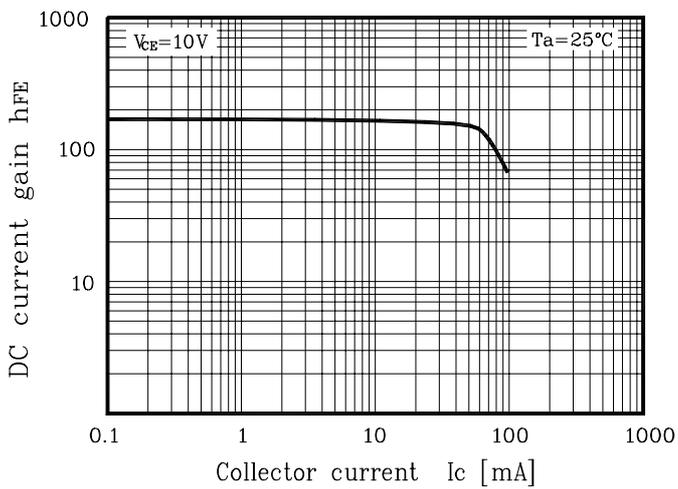
## Electrical Characteristics

(Ta=25°C)

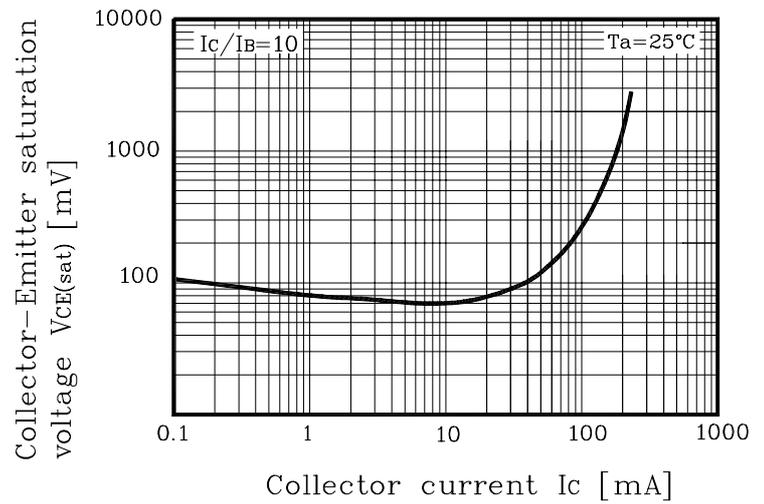
Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	$BV_{CBO}$	$I_C=50\mu A, I_E=0$	300	-	-	V
Collector-Emitter breakdown voltage	$BV_{CEO}$	$I_C=1mA, I_B=0$	300	-	-	V
Emitter-Base breakdown voltage	$BV_{EBO}$	$I_E=50\mu A, I_C=0$	7	-	-	V
Collector cut-off current	$I_{CBO}$	$V_{CB}=300V, I_E=0$	-	-	0.5	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	0.5	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=10V, I_C=10mA$	40	-	300	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$	-	-	0.5	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C=20mA$	50	95	-	MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=20V, I_E=0, f=1MHz$	-	3	-	pF

## Electrical Characteristic Curves

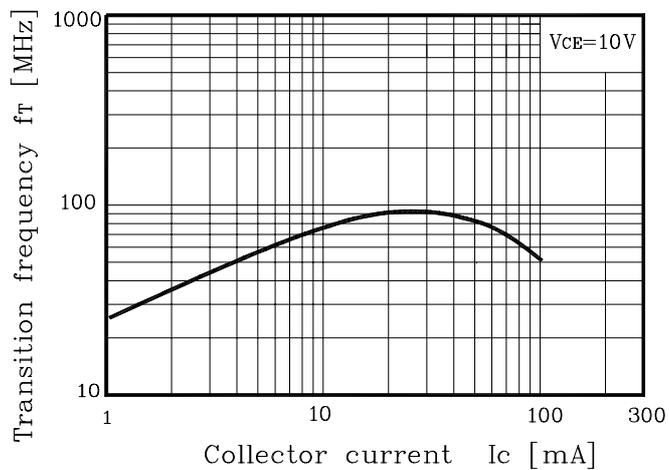
**Fig. 1  $h_{FE} - I_C$**



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



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



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

