

## Description

- General purpose amplifier
- Surface mount applications

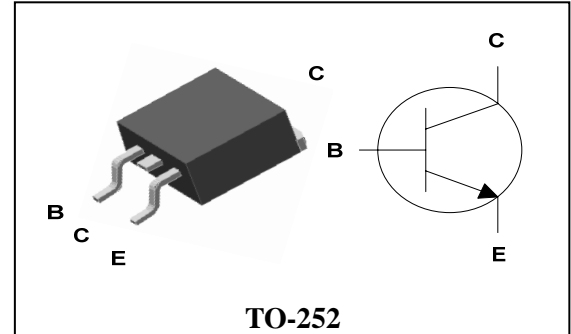
## Features

- $P_C$ (Collector dissipation)= 15W
- Low speed switching applications
- Complementary pair with STA723D

## Ordering Information

Type NO.	Marking	Package Code
STC722D	STC722	TO-252

## PIN Connection



## 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	$I_C$	3	A(DC)
	$I_{CP}$	6	A(Pulse)
Collector Power dissipation (Tc= 25 °C)	$P_C$	15	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55~ 150	°C

\* : Single pulse, tp= 300 μs

## Electrical Characteristics

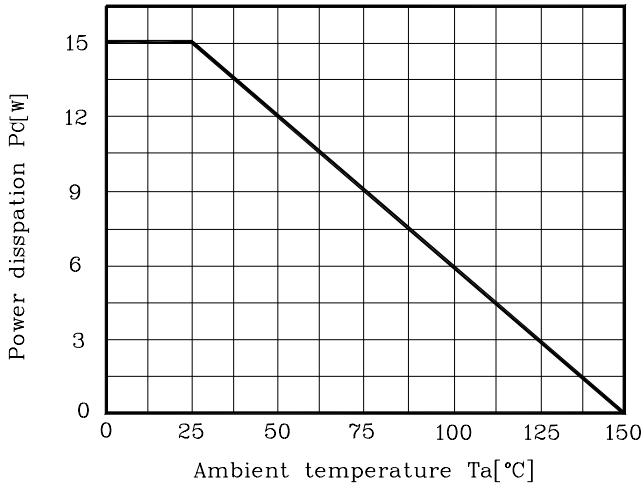
(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	$BV_{CBO}$	$I_C=50\mu A, I_E=0$	40	-	-	V
Collector-Emitter breakdown voltage	$BV_{CEO}$	$I_C=1mA, I_B=0$	30	-	-	V
Emitter-Base breakdown voltage	$BV_{EBO}$	$I_C=50\mu A, I_C=0$	5	-	-	V
Collector cut-off current	$I_{CBO}$	$V_{CB}=20V, I_E=0$	-	-	1	μA
Emitter cut-off current	$I_{EBO}$	$V_{EB}=4V, I_C=0$	-	-	1	μA
DC current gain	$h_{FE}$	$V_{CE}=3V, I_C=500mA$	80	-	390	-
		$V_{CE}=3V, I_C=3A$	10	-	-	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$V_{CE}=2A, I_C=200mA$	-	0.5	0.8	V
Transition frequency	$f_T$	$V_{CE}=5V, I_C=500mA, f=1MHz$	-	120	-	MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	13	-	pF

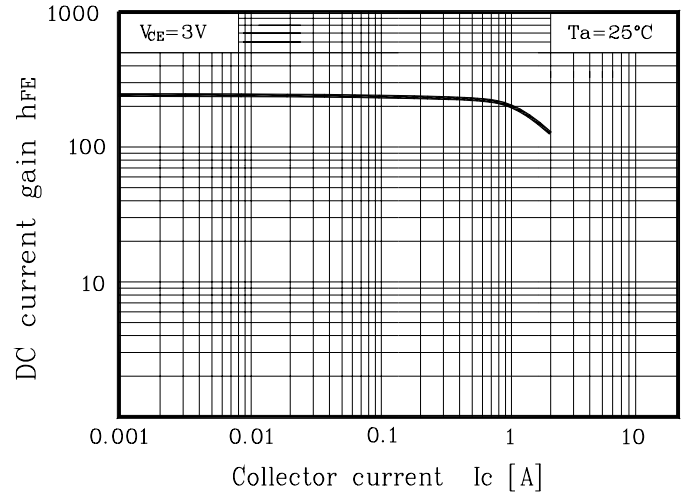
 \* :  $h_{FE}$  rank / O : 80~218, Y : 120~270, G : 180~390

## Electrical Characteristic Curves

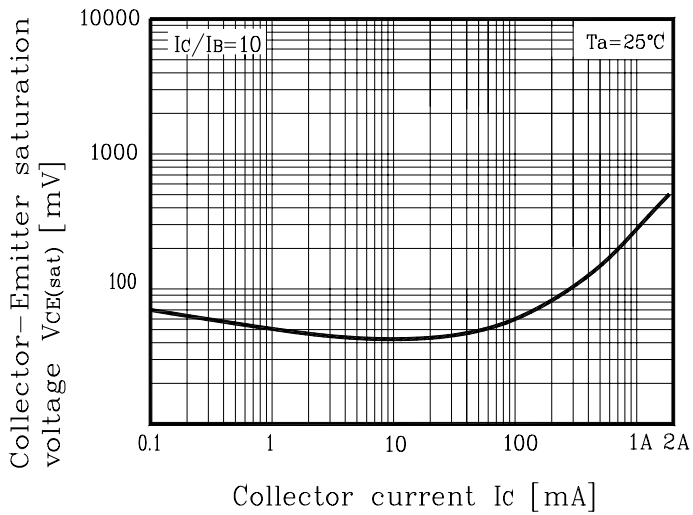
**Fig. 1  $P_C - T_a$**



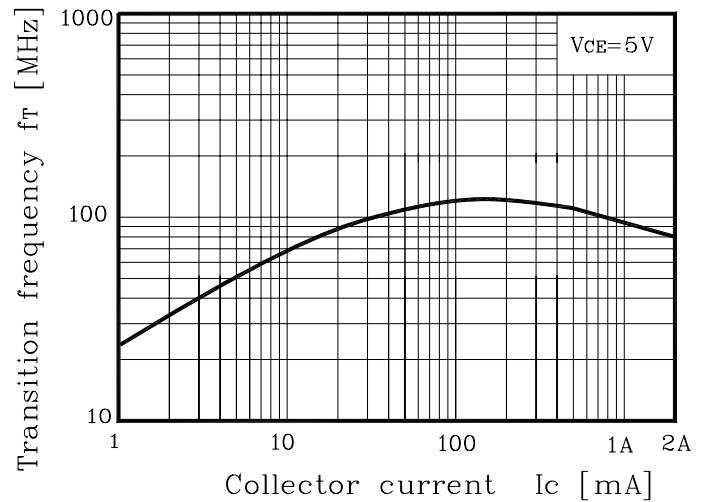
**Fig. 2  $h_{FE} - I_C$**



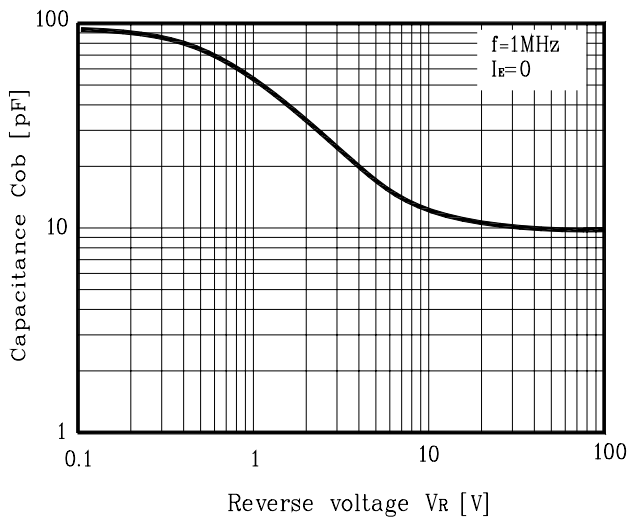
**Fig. 3  $V_{CE(sat)} - I_C$**



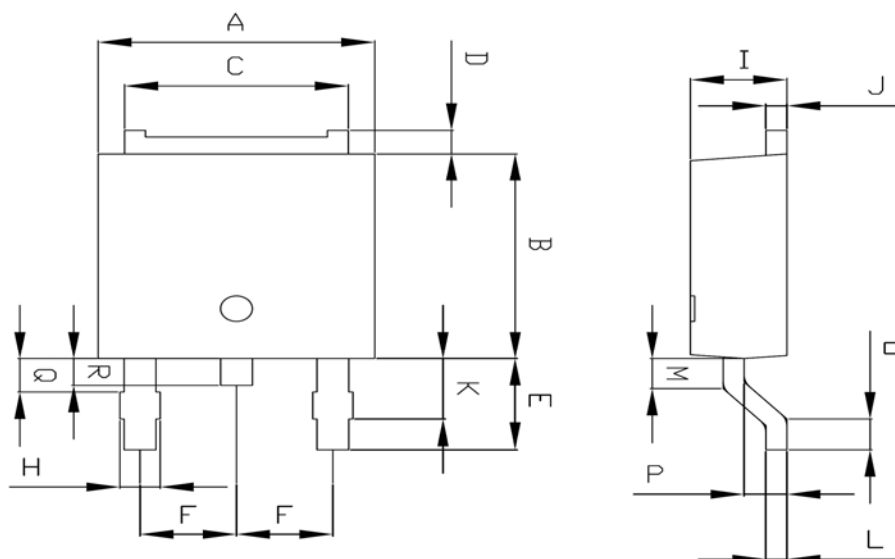
**Fig. 4  $f_T - I_C$**



**Fig. 5  $C_{ob} - V_R$**

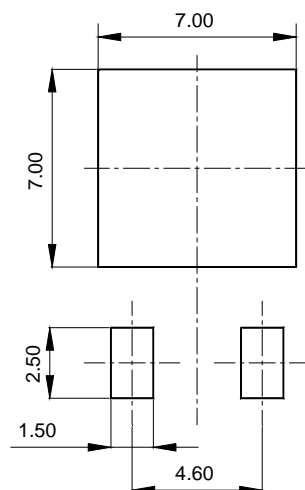


Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	6.40	6.60	6.80	
B	5.90	6.10	6.30	
C	5.04	5.34	5.64	
D	0.50	0.70	0.90	
E	2.50	2.70	2.90	
F	2.10	2.30	2.50	
H	0.96 MAX			
I	2.20	2.30	2.40	
J	0.40	0.50	0.60	
K	1.60	1.80	2.00	
L	0.40	0.50	0.60	
M	0.81	0.91	1.01	
O	0.80	0.90	1.00	
P	0.90	1.00	1.10	
Q	0.95 MAX			
R	0.60	0.80	1.00	

※Recommend PCB solder land [Unit: mm]



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