

Description

- General purpose amplifier
- D-PAK for surface mount applications

Features

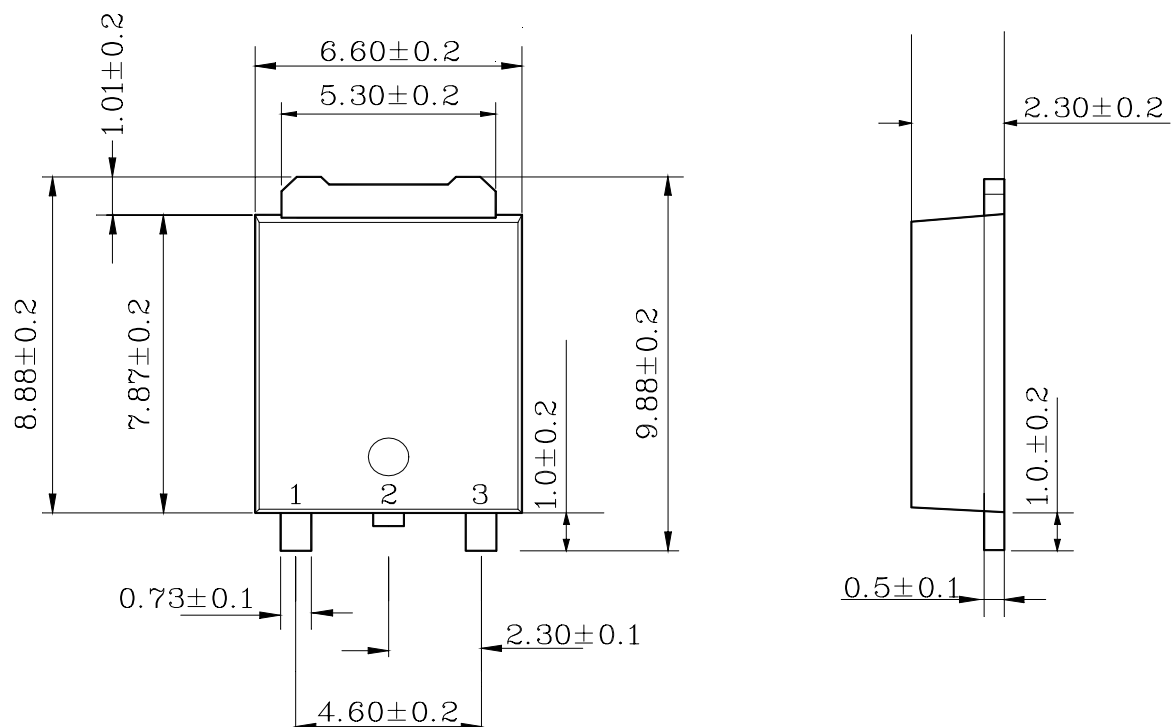
- P_c (Collector dissipation)=15W
- Low speed switching applications
- Complementary pair with STA723D

Ordering Information

Type NO.	Marking	Package Code
STC722D	STC722	D-PAK

Outline Dimensions

unit : mm



PIN Connections

1. Base
2. Collector
3. Emitter

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
Collector dissipation	P_C	15	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}	$I_C = 50\mu A, I_E = 0$	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 $h_{FE} - I_C$

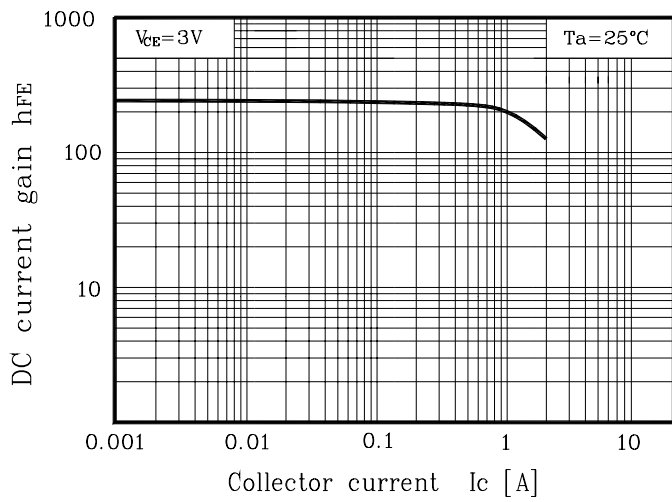


Fig. 2 $V_{CE(sat)} - I_C$

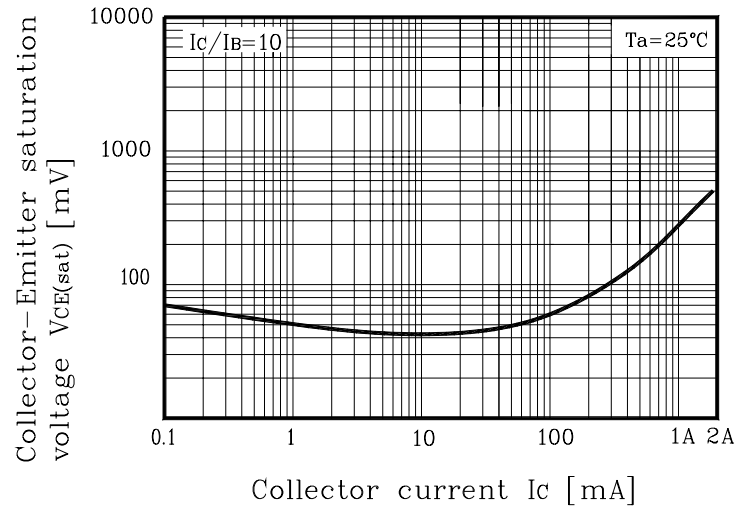


Fig. 3 $f_T - I_C$

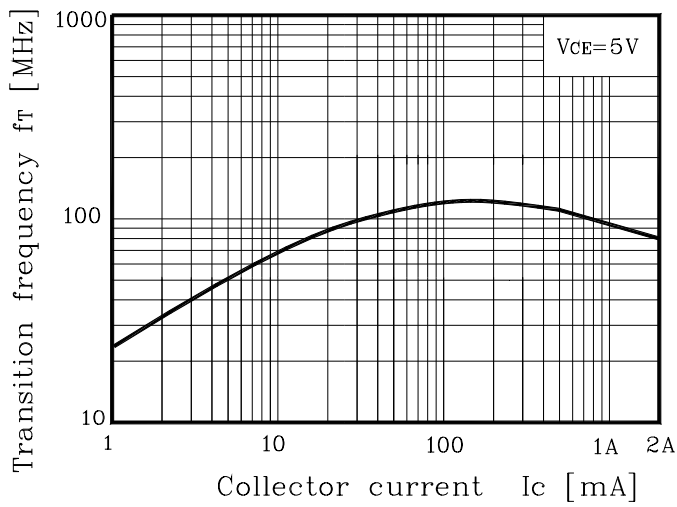


Fig. 4 $C_{ob} - V_R$

