

Description

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

Features

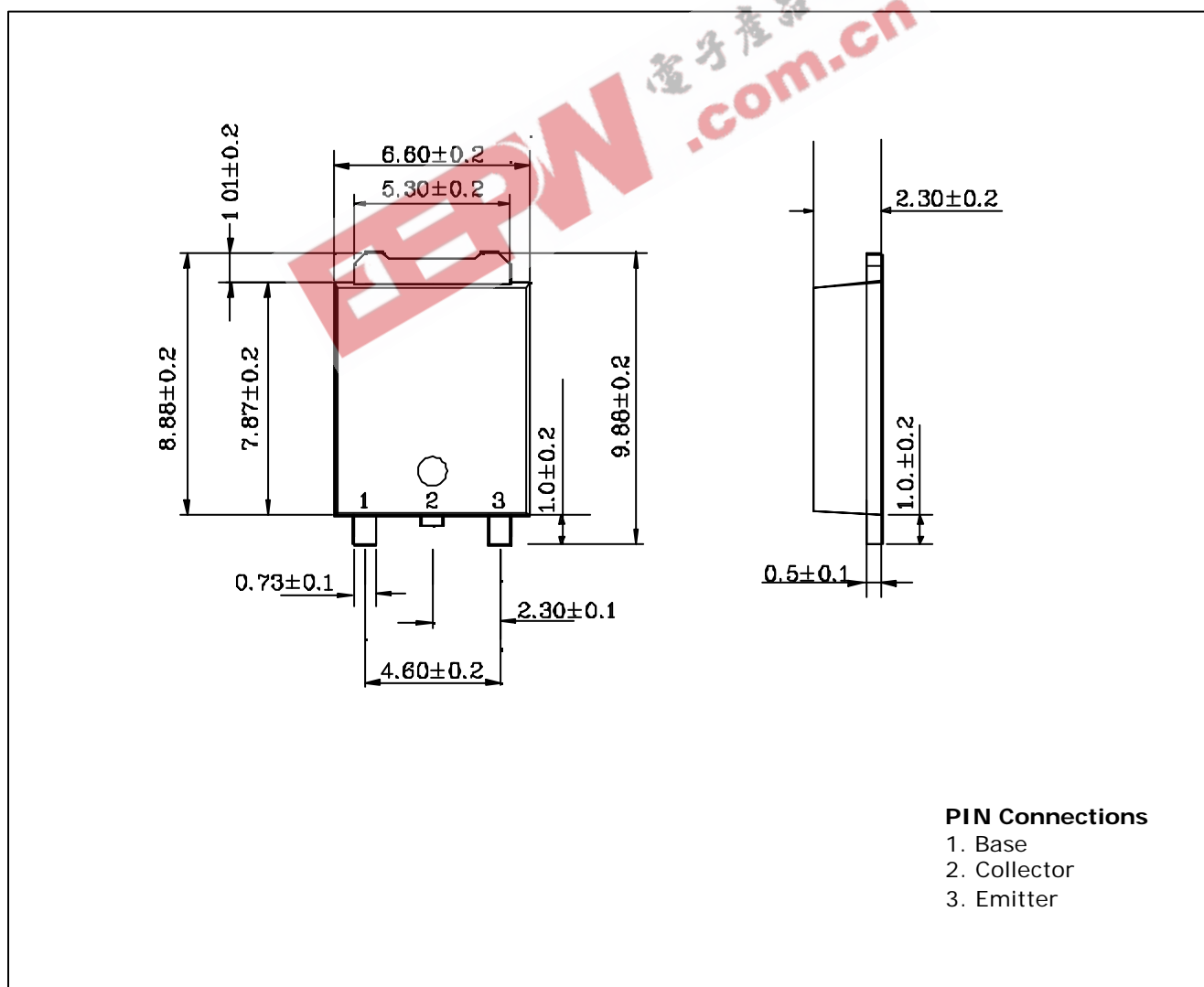
- P_c (Collector dissipation) = 15W
- Low speed switching applications
- Complementary pair with STC722D

Ordering Information

Type NO.	Marking	Package Code
STA723D	STA723	D-PAK

Outline Dimensions

unit : mm



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}	$I_C=-50\mu A, I_B=0$	-40	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	$I_C=-1mA, I_B=0$	-30	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	$I_E=-50\mu A, I_B=0$	-5	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB}=-20V, I_B=0$	-	-	-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4V, V_{BE}=0$	-	-	-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	$V_{CE(sat)}$	$I_C=-2A, I_B=-200mA$	-	-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 $h_{FE} - I_C$

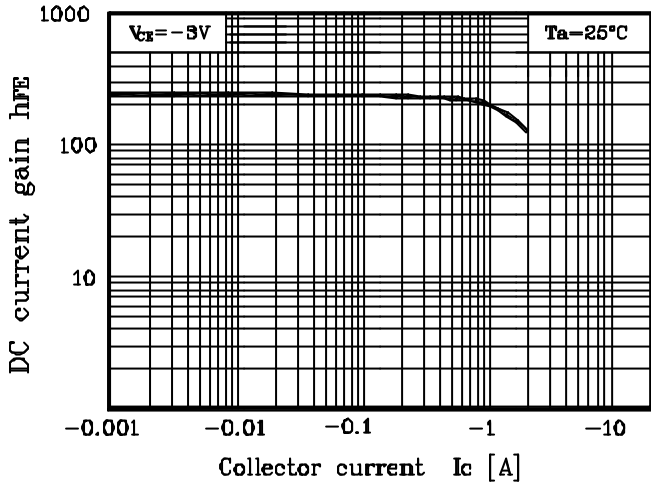


Fig. 2 $V_{CE(sat)} - I_C$

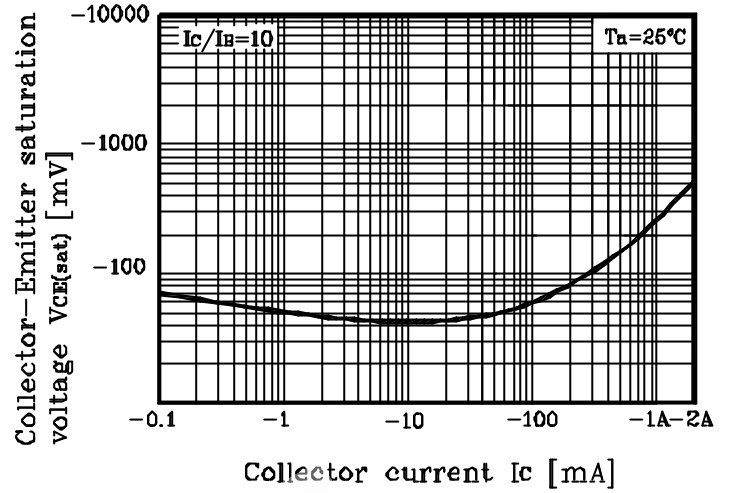


Fig. 3 $f_T - I_C$

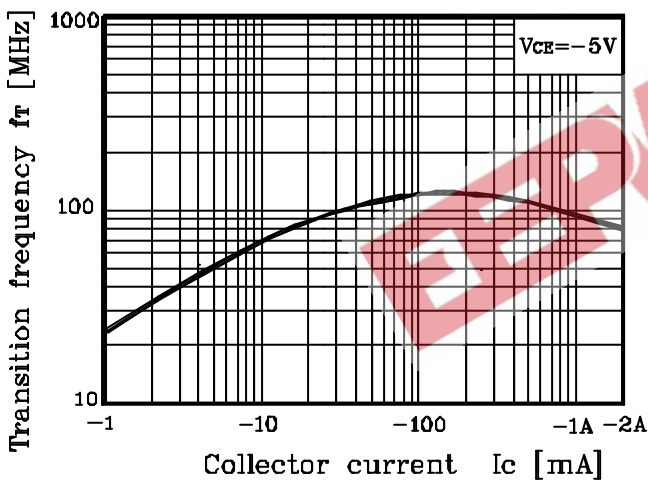


Fig. 4 $C_{ob} - V_R$

