

Descriptions

- High voltage application

Features

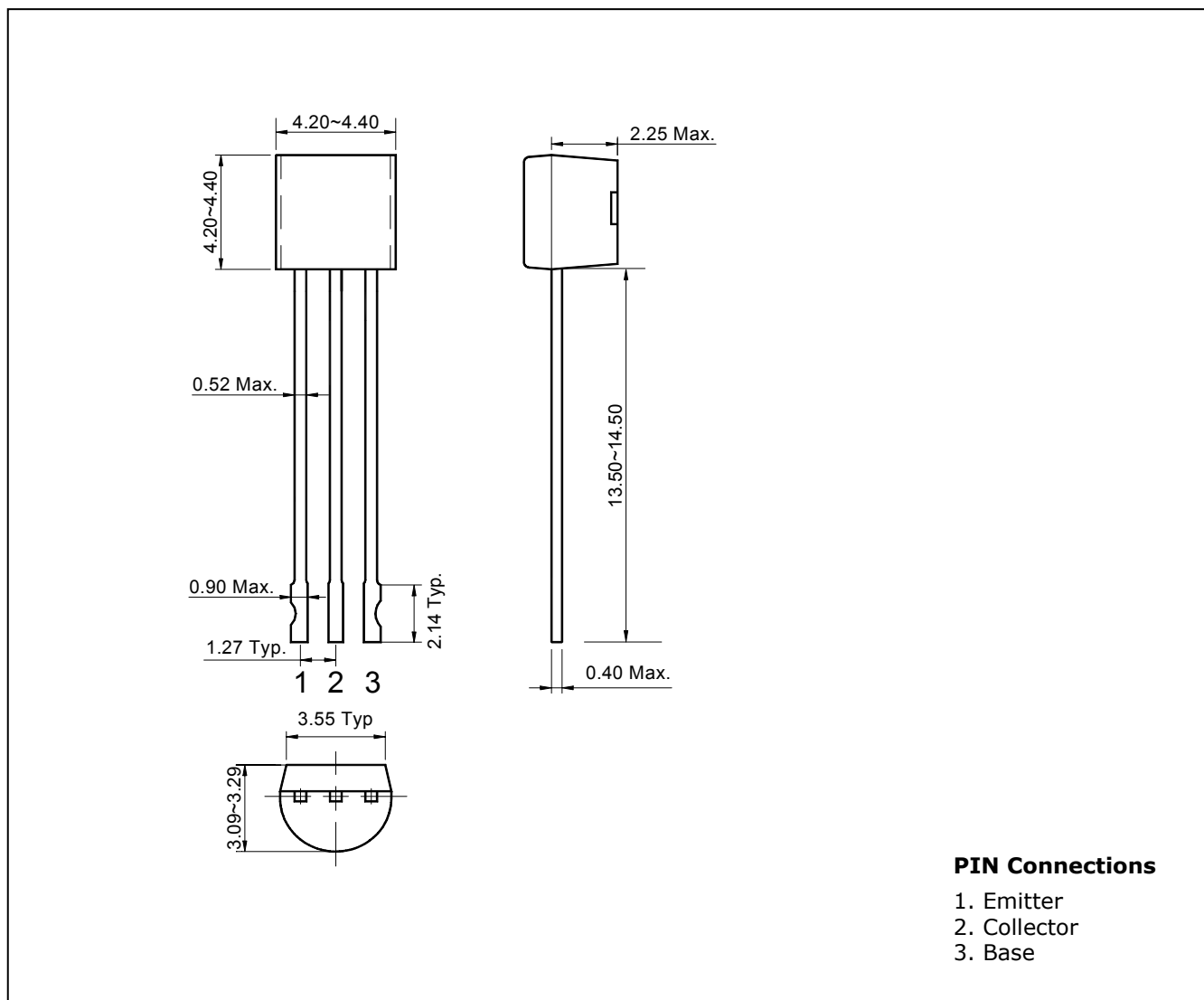
- High collector-emitter voltage : $V_{CEO} = -250V$
- Complementary pair with STC422N

Ordering Information

Type NO.	Marking	Package Code
STA423N	STA423	TO-92N

Outline Dimensions

unit : mm



Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-250	V
Collector-emitter voltage	V_{CEO}	-250	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-100	mA
Collector power dissipation	P_C	400	mW
Junction temperature	T_J	150	°C
Storage temperature range	T_{stg}	-55~150	°C

Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = -1mA, I_B = 0$	-250	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB} = -250V, I_E = 0$	-	-	-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$	-	-	-100	nA
DC current gain	h_{FE}	$V_{CE} = -20V, I_C = -25mA$	50	-	-	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -30mA, I_B = -5mA$	-	-	-0.6	V
Base-emitter voltage	V_{BE}	$V_{CE} = -20V, I_C = -25mA$	-	-0.67	-0.9	V
Transition frequency	f_T	$V_{CE} = -20V, I_C = -10mA$	-	80	-	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -20V, I_E = 0, f = 1MHz$	-	1	-	pF

Electrical Characteristic Curves

Fig. 1 $P_c - T_a$

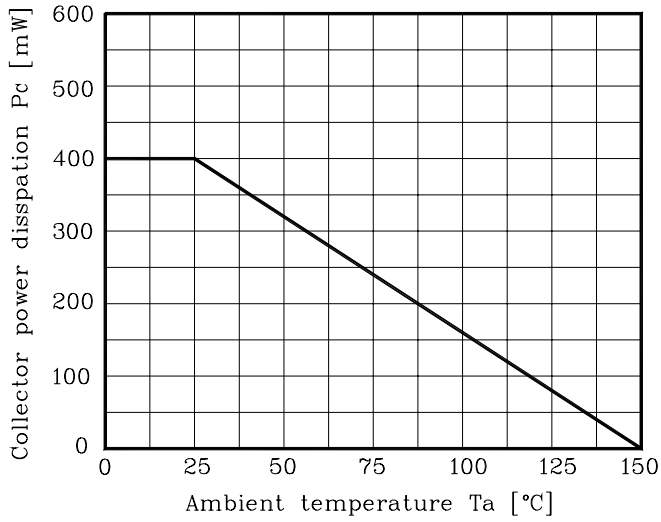


Fig. 2 $h_{FE} - I_C$

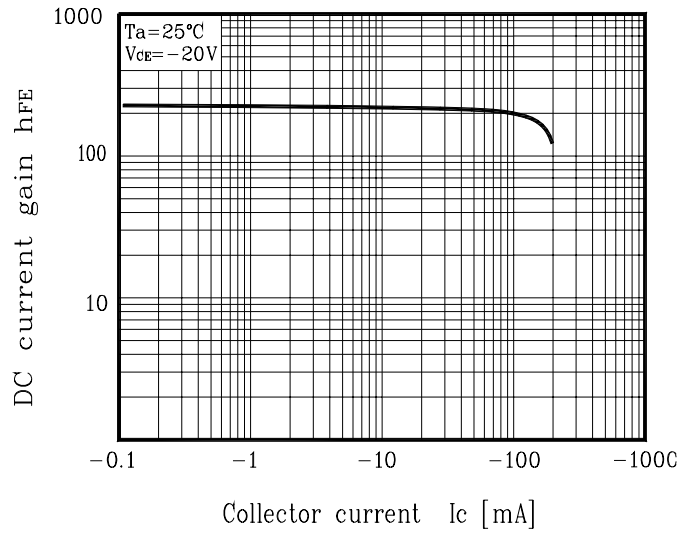


Fig. 3 $V_{CE(sat)} - I_C$

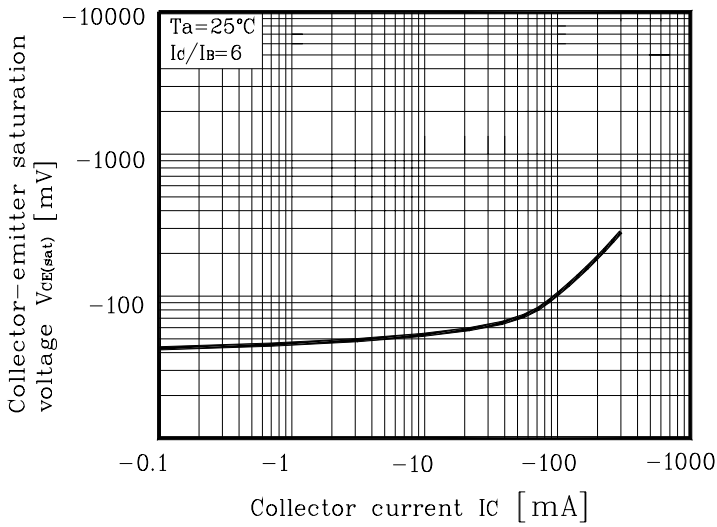


Fig. 4 $f_T - I_C$

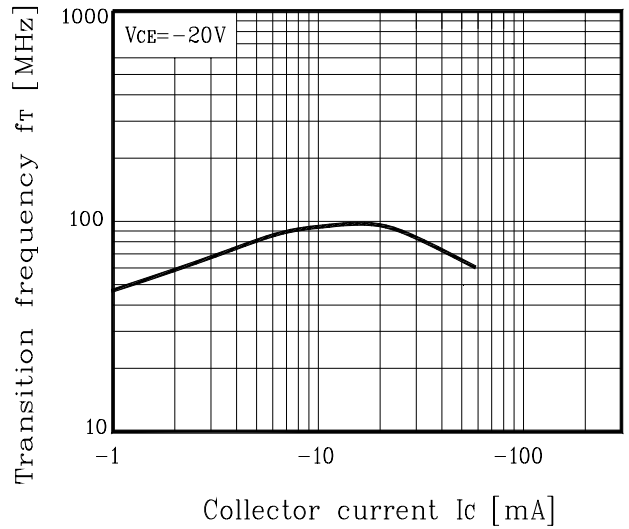
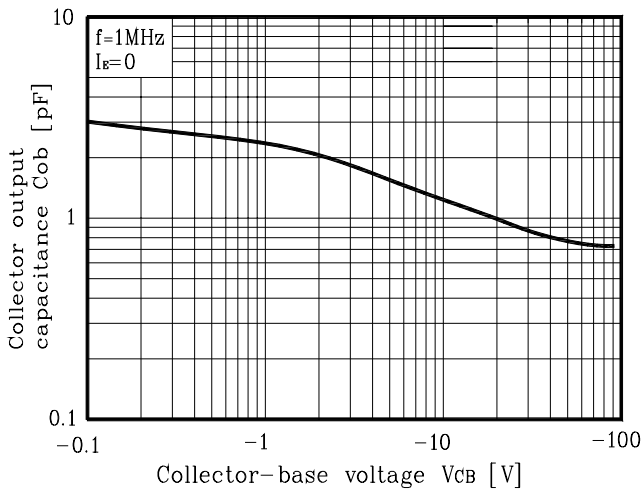


Fig. 5 $C_{ob} - V_{CB}$



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