

Description

- Audio power amplifier application

Features

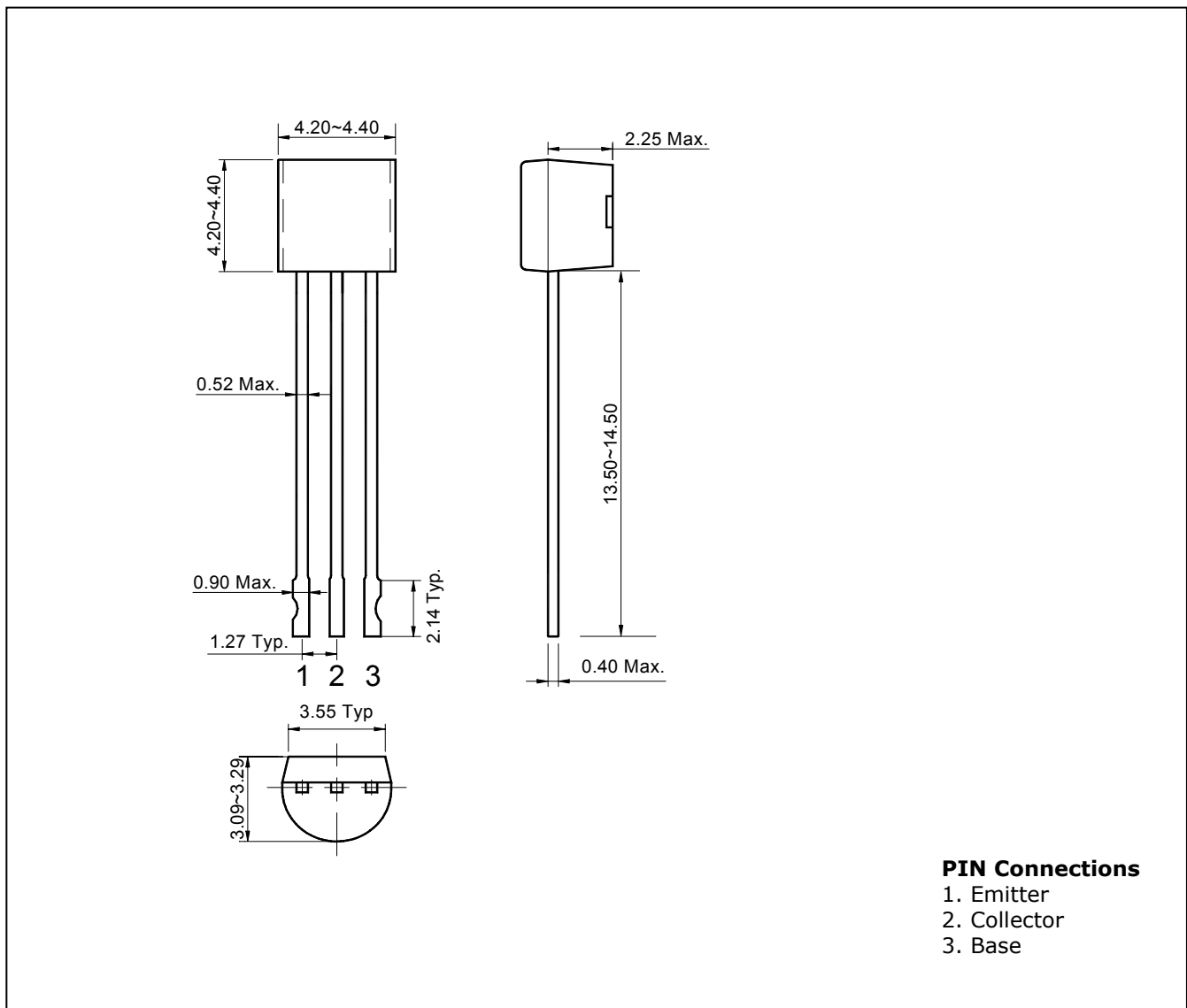
- High h_{FE} : $h_{FE}=100\sim320$
- Complementary pair with 2SC5344N

Ordering Information

Type NO.	Marking	Package Code
2SA1981N	A1981	TO-92N

Outline Dimensions

unit : mm



PIN Connections

1. Emitter
2. Collector
3. Base

Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-35	V
Collector-emitter voltage	V_{CEO}	-30	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-800	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}	$I_C = -1\text{mA}$, $I_B = 0$	-30	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB} = -35\text{V}$, $I_E = 0$	-	-	-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{V}$, $I_C = 0$	-	-	-0.1	μA
DC current gain	h_{FE}^*	$V_{CE} = -1\text{V}$, $I_C = -100\text{mA}$	100	-	320	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}$, $I_B = -20\text{mA}$	-	-	-0.5	V
Base-emitter voltage	V_{BE}	$V_{CE} = -1\text{V}$, $I_C = -100\text{mA}$	-	-0.73	-0.95	V
Transition frequency	f_T	$V_{CE} = -5\text{V}$, $I_C = -10\text{mA}$	-	200	-	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$	-	19	-	pF

* : h_{FE} rank / O : 100~200, Y : 160~320

Electrical Characteristic Curves

Fig. 1 $P_c - T_a$

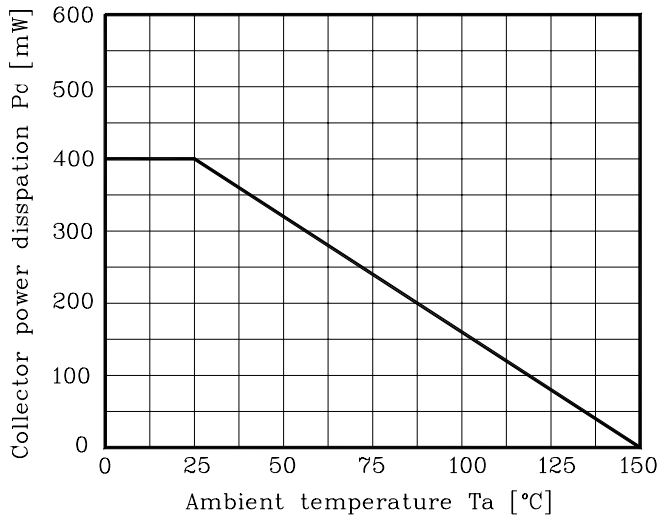


Fig. 2 $I_c - V_{BE}$

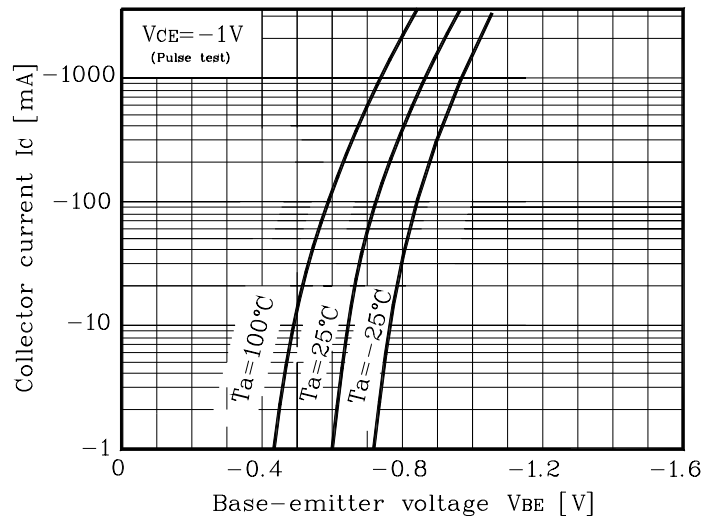


Fig. 3 $I_c - V_{CE}$

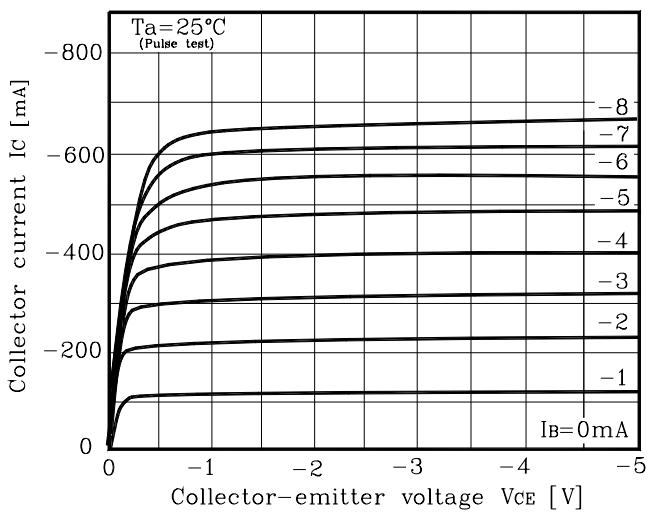


Fig. 4 $h_{FE} - I_c$

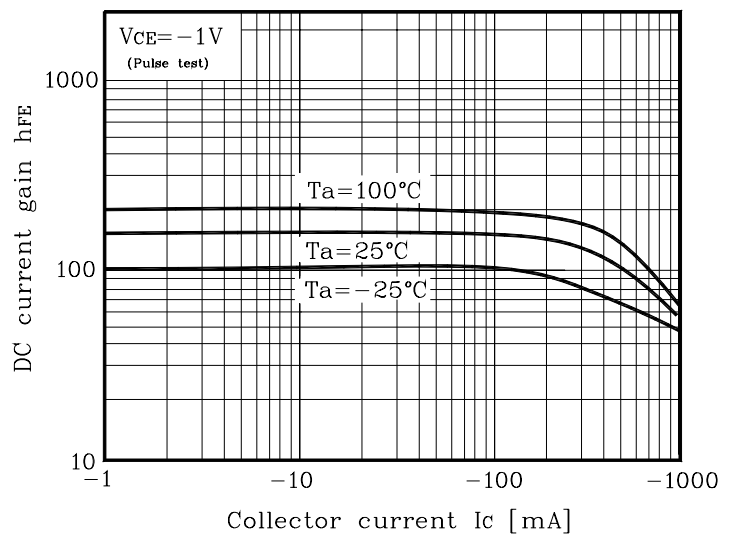
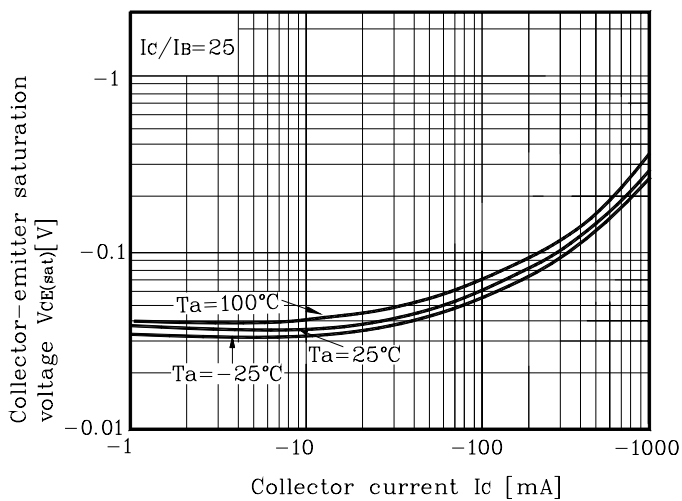


Fig. 5 $V_{CE(SAT)} - I_c$



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