AUK Semiconductor

STS1979N

PNP Silicon Transistor

Description

• Medium power amplifier

Features

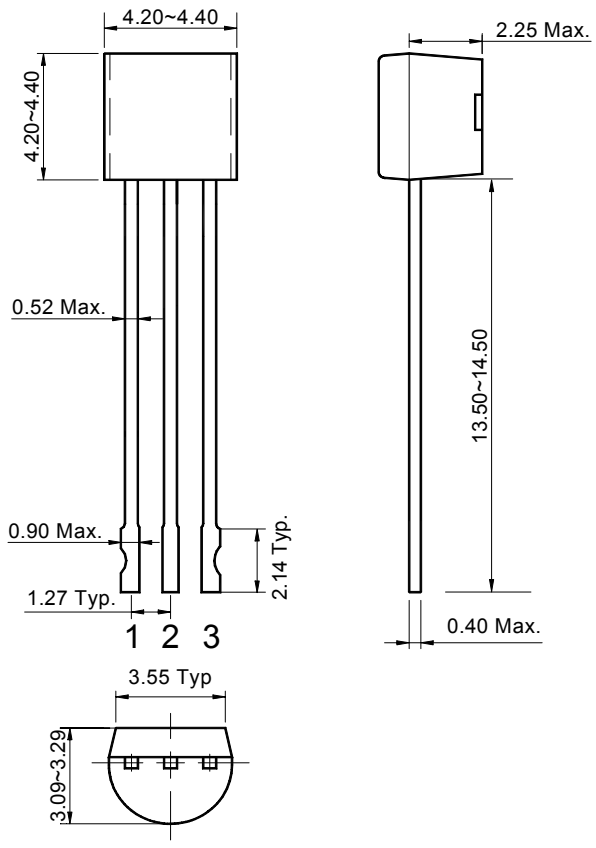
• Large collector current : I_C=-500mA
• Low collector saturation voltage enabling low-voltage operation : $V_{CE(sat)}$ = -0.25 Max.

Ordering Information

Type NO.	Marking	Package Code
STS1979N	STS1979	TO-92N

Outline Dimensions

unit : mm



PIN Connections
1. Emitter
2. Base
3. Collector

Absolute Maximum Ratings (Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-40	V
Collector-emitter voltage	V_{CEO}	-32	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-500	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=-10mA, I_B=0	-32	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=-40V, I_E=0	-	-	-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V, I_C=0	-	-	-0.1	μA
DC current gain	h_{FE}	V_{CE}=-1V, I_C=-100mA	120	-	240	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100mA, I_B=-10mA	-	-	-0.25	V
Base-emitter voltage	V_{BE}	V_{CE}=-1V, I_C=-100mA	-	-0.75	-1.0	V
Transition frequency	f_T	V_{CE}=-6V, I_C=-20mA	-	200	-	MHz
Collector output capacitance	C_{ob}	V_{CB}=-6V, I_E=0, f=1MHz	-	7.5	-	pF

Electrical Characteristic Curves

Fig. 1 P_C - T_a

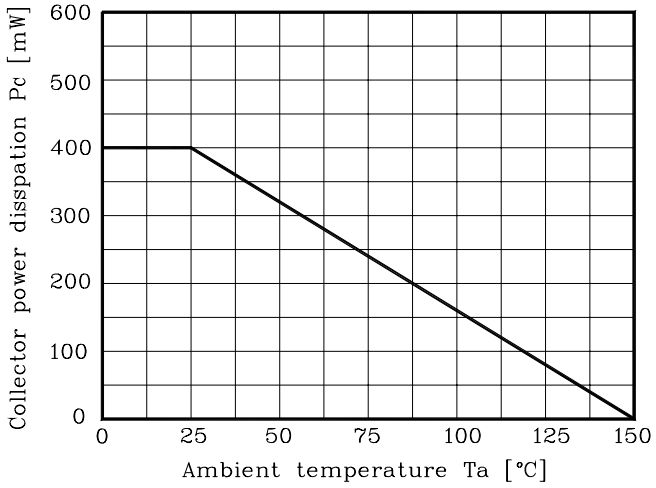


Fig. 2 I_C - V_{BE}

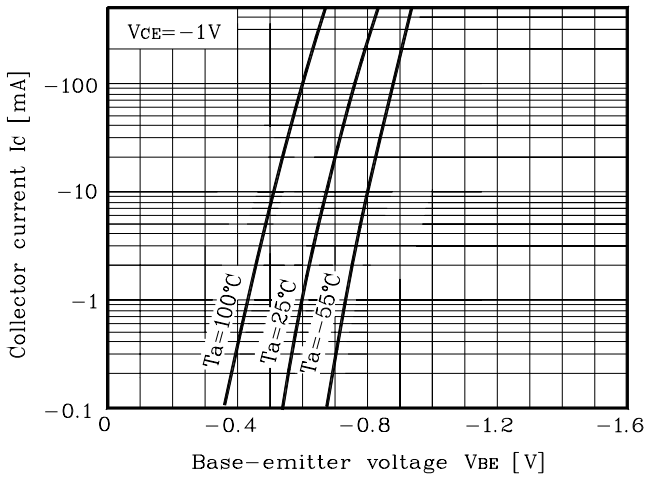


Fig. 3 I_C - V_{CE}

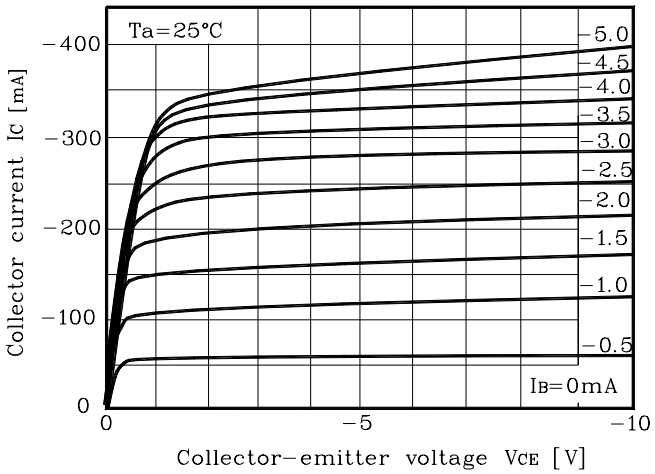


Fig. 4 $V_{CE(sat)}$ - I_C

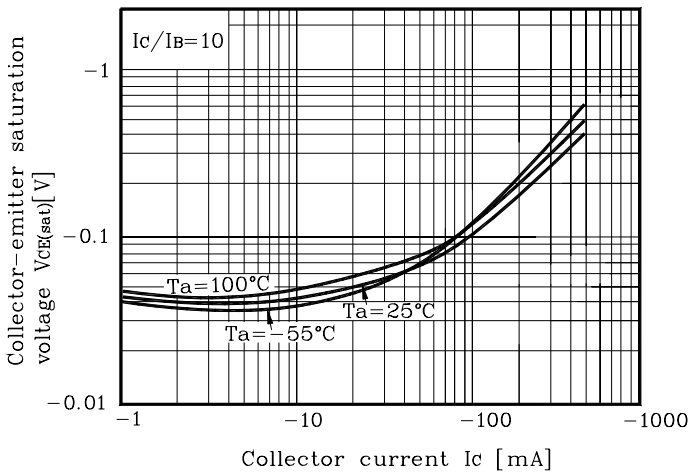


Fig. 5 h_{FE} - I_C

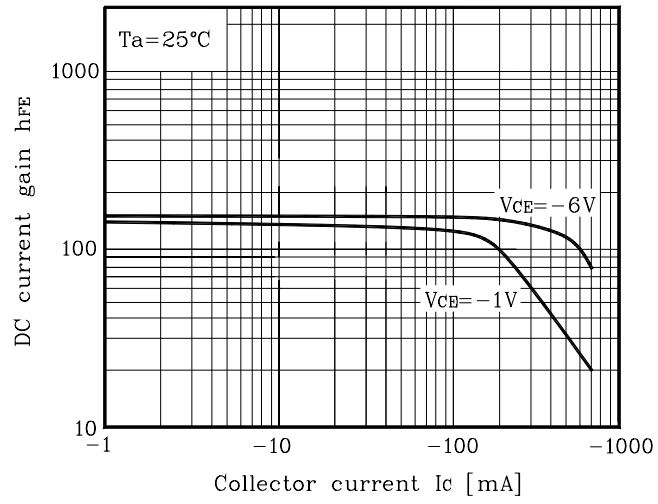
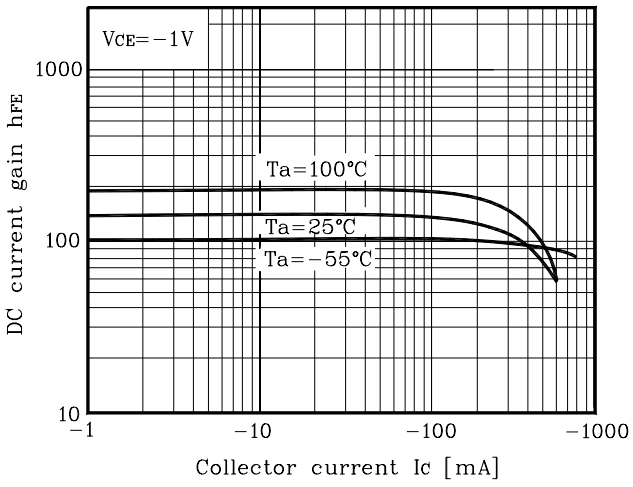


Fig. 6 h_{FE} - I_C



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