AUK Semiconductor

STA124S

PNP Silicon Transistor

Features

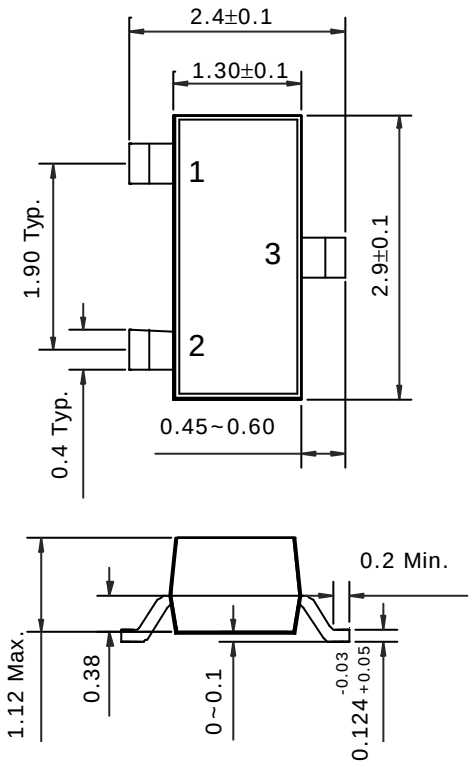
- Suitable for low voltage large current drivers
- High DC current gain and large current capability
- Complementary pair with STD123S

Ordering Information

Type NO.	Marking	Package Code
STA124S	124	SOT-23

Outline Dimensions

unit : mm



PIN Connections

1. Base
2. Emitter
3. Collector

Absolute maximum ratings (Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	-15	V
Collector-Emitter voltage	V_{CEO}	-12	V
Emitter-Base voltage	V_{EBO}	-6.5	V
Collector current	I_C	-1	A
Collector dissipation	P_C*	350	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55~150	°C

* : Package mounted on 99.5% alumina 10×8×0.1mm

Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	I_C=-50μA, I_E=0	-15	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	I_C=-1mA, I_B=0	-12	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	I_E=-50μA, I_C=0	-6.5	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=-15V, I_E=0	-	-	-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-6V, I_C=0	-	-	-0.1	μA
DC current gain	h_{FE}	V_{CE}=-1V, I_C=-100mA	200	-	450	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	I_C=-500mA, I_B=-50mA	-	-0.2	-0.4	V
Transistor frequency	f_T	V_{CE}=-5V, I_C=-50mA	-	260	-	MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	5	-	pF

Fig. 1 P_C - T_a

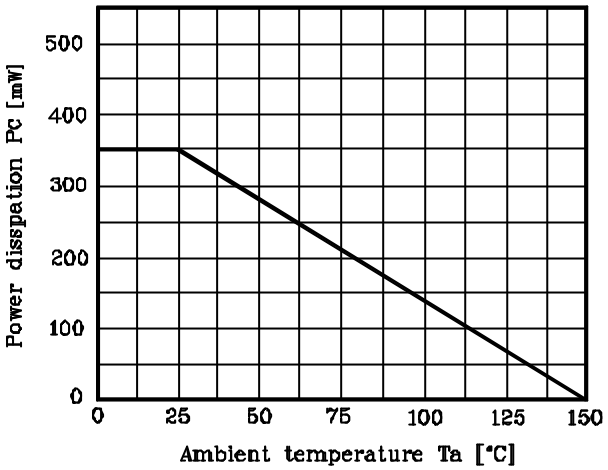


Fig. 2 I_C - V_{BE}

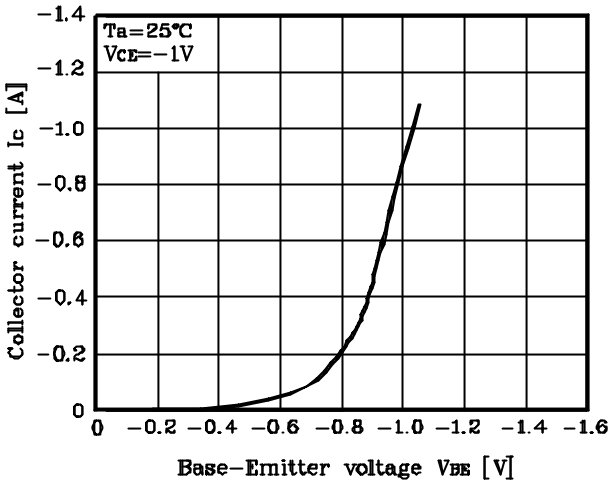


Fig. 3 h_{FE}-I_C

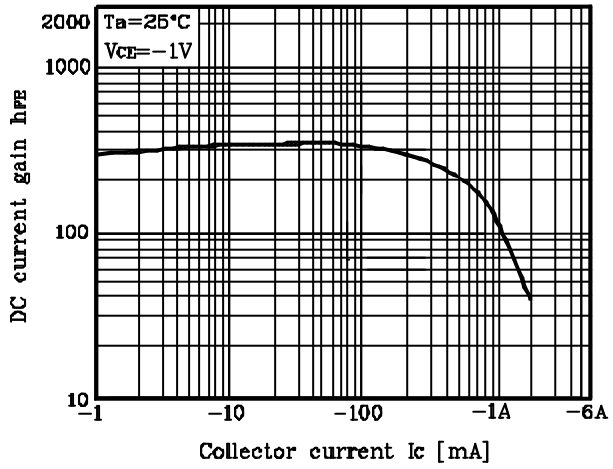


Fig. 4 $V_{CE(sat)}$-I_C