

PNP Silicon Transistor

unit : mm

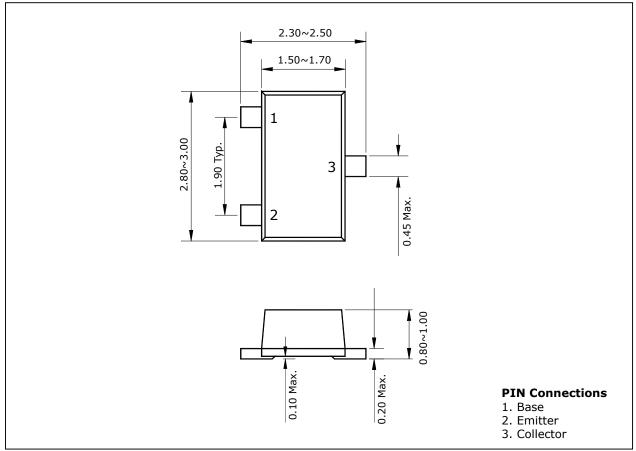
Features

- Suitable for low voltage large current drivers
- High DC current gain and large current capability
- Complementary pair with STD123SF

Ordering Information

Type NO.	Marking	Package Code	
STA124SF	124	SOT-23F	

Outline Dimensions



STA124SF

Absolute maximum ratings

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	А		
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

Electrical Characteristics (Ta=25°C						
Characteristic	Symbol	Test Condition	Min.	Тур.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	I_{C} =-50 μ A, 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} =-50 μ A, 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	\mathbf{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⊤	V_{CE} =-5V, I_{C} =-50mA	-	260	-	MHz
Collector output capacitance	C _{ob}	V_{CB} =-10V, I_E =0, f=1MHz	-	5	-	pF

STA124SF

Fig. 1 P_C - T_a

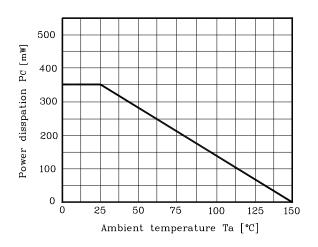


Fig. 2 $I_C - V_{BE}$

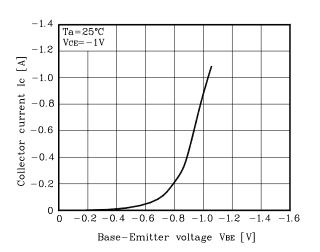
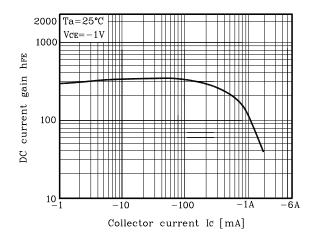


Fig. 3 h_{FE}-I_C

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



Collector current Ic [mA]

STA124SF

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