AUK Semiconductor

2SC5342SF

NPN Silicon Transistor

Description

- Medium power amplifier

Features

- Large collector current : I_C=500mA
- Low collector saturation voltage enabling low-voltage operation
- Complementary pair with 2SA1979SF

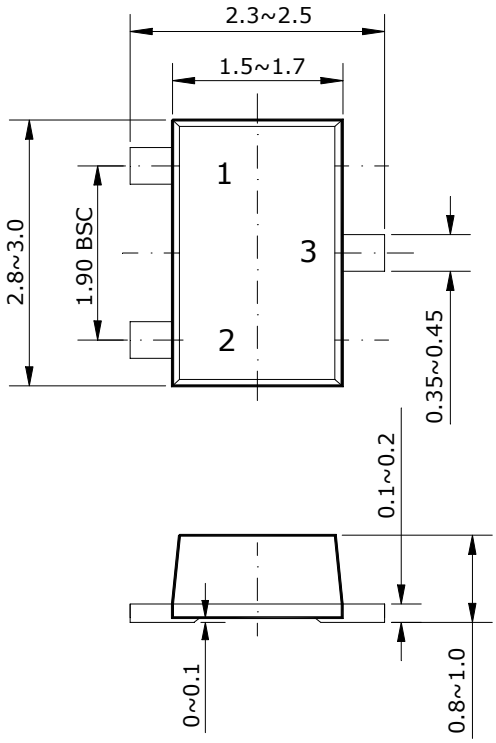
Ordering Information

Type NO.	Marking	Package Code
2SC5342SF	BA□	SOT-23F

□ : h_{FE} rank

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}	40	V
Collector-Emitter voltage	V_{CEO}	32	V
Emitter-Base voltage	V_{EBO}	5	V
Collector current	I_C	500	mA
Collector dissipation	P_C	200	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55~150	°C

Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	I_C=100μA, I_E=0	40	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	I_C=1mA, I_B=0	32	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	I_E=10μA, I_C=0	5	-	-	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	70	-	240	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	I_C=100mA, I_B=10mA	-		0.25	V
Transition frequency	f_T	V_{CE}=6V, I_E=-20mA	-	300	-	MHz
Collector output capacitance	C_{ob}	V_{CB}=6V, I_E=0, f=1MHz	-	7.0	-	pF

* : h_{FE} Rank / O : 70~140, Y : 120~240

Electrical Characteristic Curves

Fig. 1 Pc - Ta

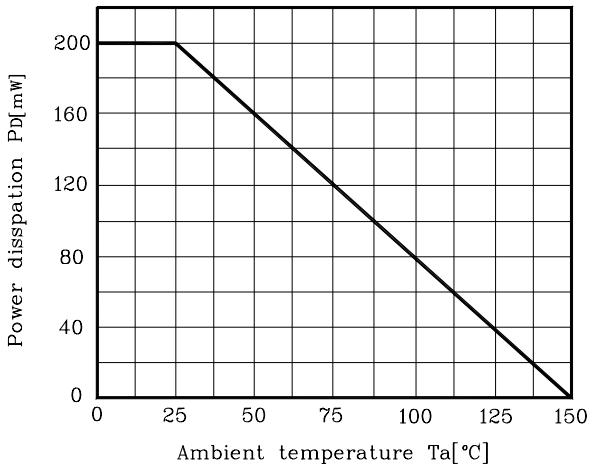


Fig. 2 I_C - V_{BE}

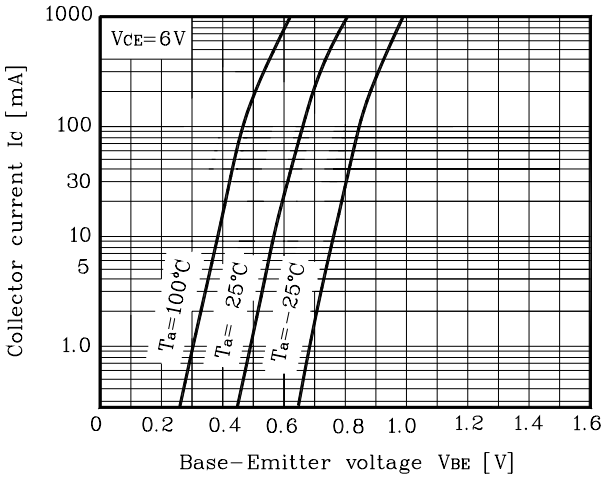


Fig. 3 I_C - V_{CE}

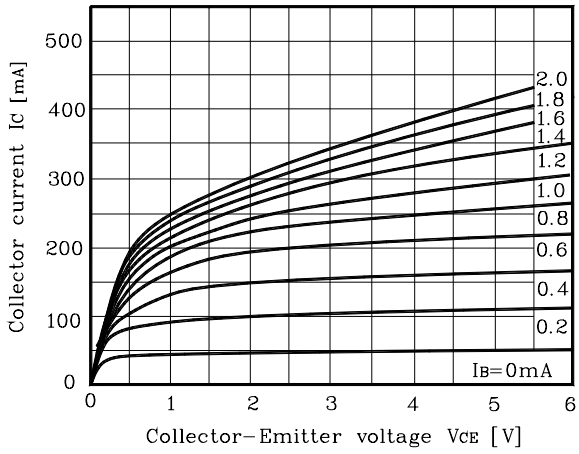


Fig. 4 $V_{CE(SAT)}$ - I_C

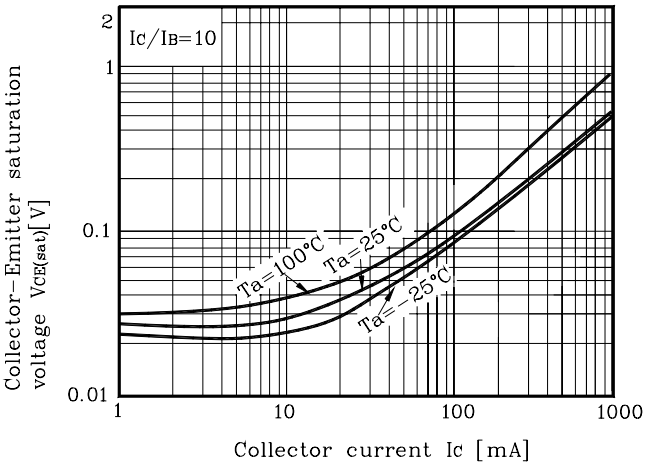
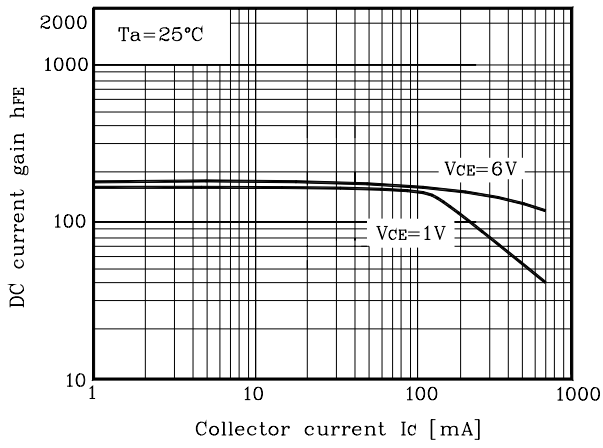


Fig. 5 h_{FE} - I_C



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