AUK Semiconductor

BC818F

NPN Silicon Transistor

Descriptions

- High current application
- Switching application

Features

- Suitable for AF-Driver stage and low power output stages
- Complementary pair with BC808F

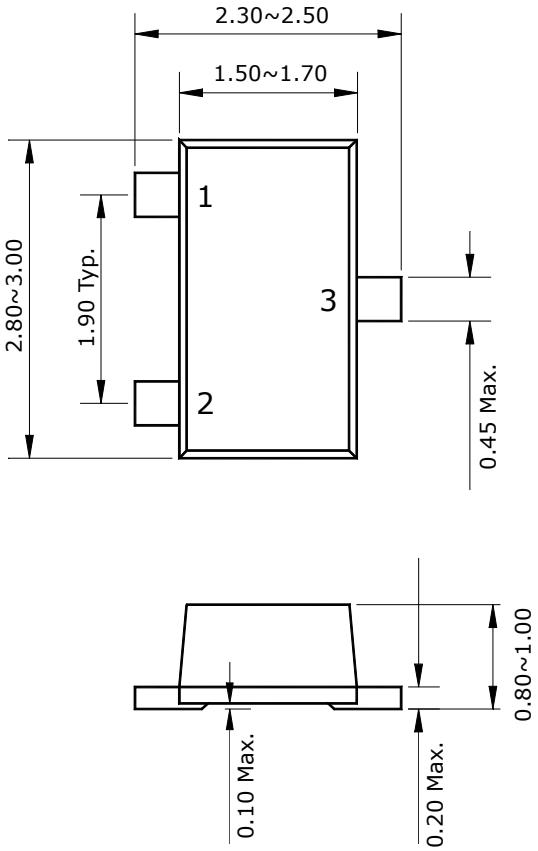
Ordering Information

Type NO.	Marking	Package Code
BC818F	PA□	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}	30	V
Collector-Emitter voltage	V_{CEO}	25	V
Emitter-Base voltage	V_{EBO}	5	V
Collector current	I_C	800	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-Emitter breakdown voltage	BV_{CEO}	I_C=1mA, I_B=0	25	-	-	V
Base-Emitter turn on voltage	$V_{BE(ON)}$	V_{CE}=1V, I_C=300mA	-	-	1.2	V
Collector-Emitter saturation voltage	$V_{CE(sat)}$	I_C=500mA, I_B=50mA	-	-	700	mV
Collector cut-off current	I_{CBO}	V_{CB}=30V, I_E=0	-	-	100	nA
DC current gain	h_{FE}*	V_{CE}=1V, I_C=100mA	100	-	630	-
Transition frequency	f_T	V_{CB}=5V, I_C=10mA	-	100	-	MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	16	-	pF

* : h_{FE} rank / 16(A) : 100 ~ 250, 25(B) : 160 ~ 400, 40(C) : 250 ~ 630

Electrical Characteristic Curves

Fig. 1 P_C - T_a

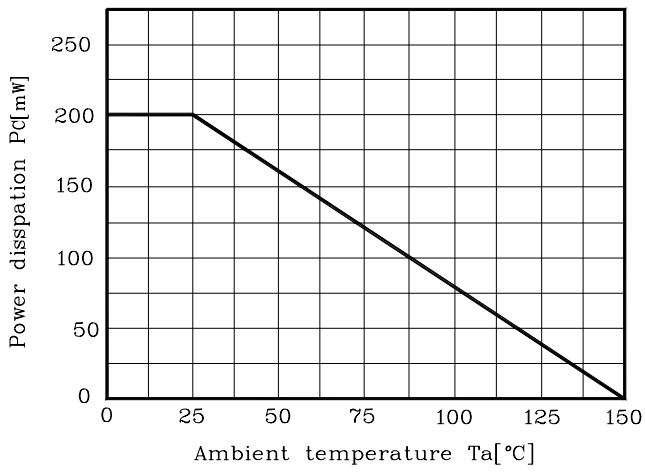


Fig. 2 I_C - V_{BE}

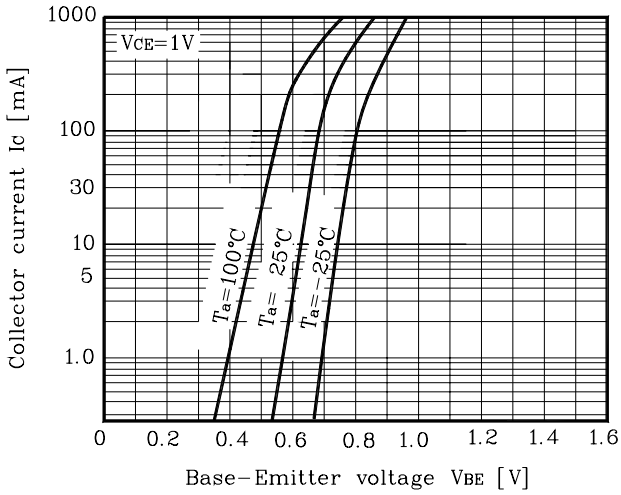


Fig. 3 I_C - V_{CE}

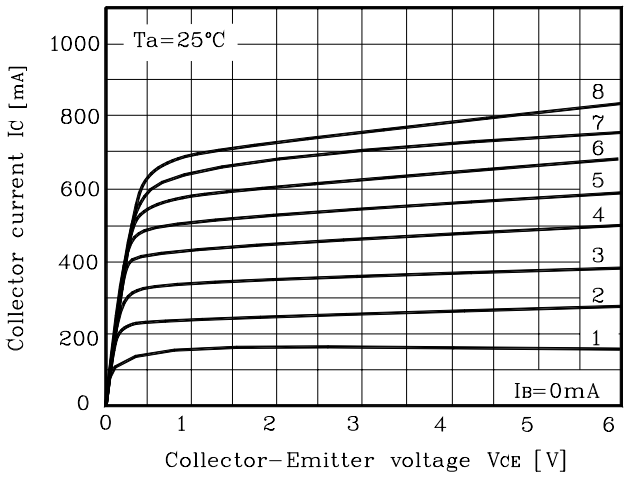


Fig. 4 $V_{CE(sat)}$ - I_C

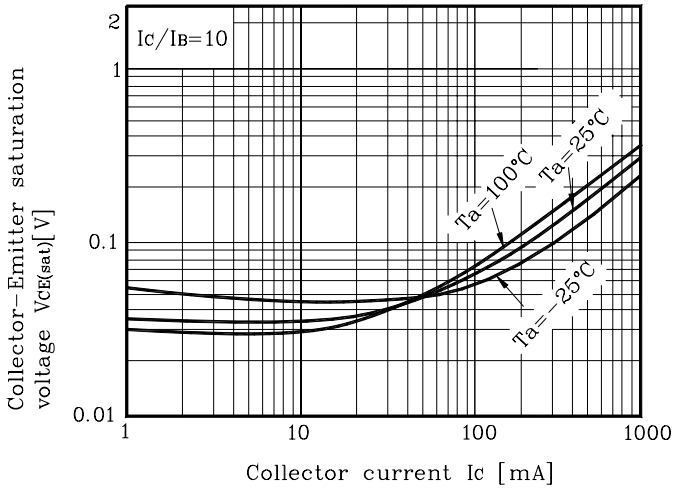
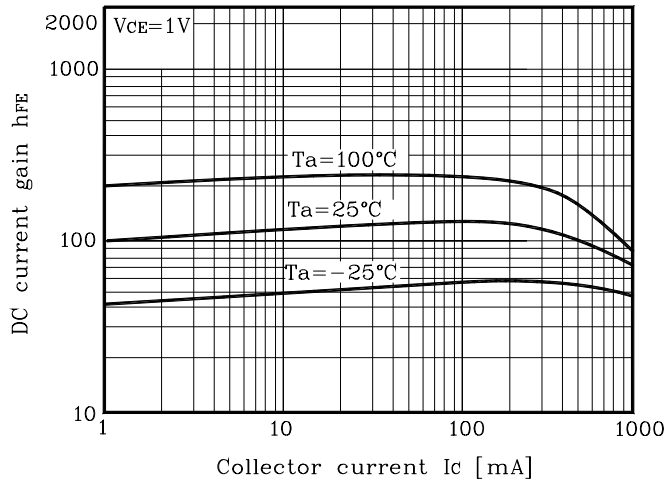


Fig. 5 h_{FE} - I_C



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