

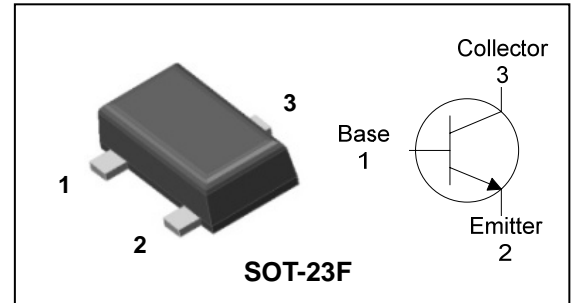
Descriptions

- High current application
- Switching application

Features

- Suitable for AF-Driver stage and low power output stages
- Complementary pair with BC807F

PIN Connection



Ordering Information

Type NO.	Marking	Package Code
BC817F	<div style="display: flex; align-items: center; gap: 5px;"> NA </div> <div style="display: flex; justify-content: space-around; font-size: small;"> ① ② ③ </div>	SOT-23F

① Device Code ② hFE Rank ③ Year&Week Code

Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	50	V
Collector-Emitter voltage	V_{CEO}	35	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}	$I_C=1mA, I_E=0$	35	-	-	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}	$V_{CB}=25V, I_E=0$	-	-	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 $P_C - T_a$

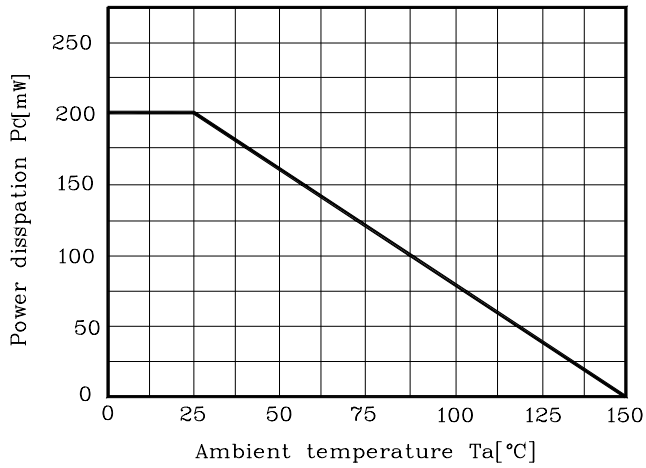


Fig. 2 $I_C - V_{BE}$

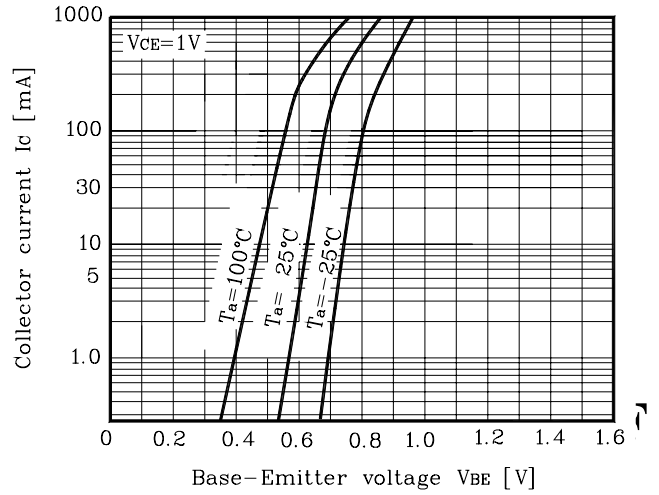


Fig. 3 $I_C - V_{CE}$

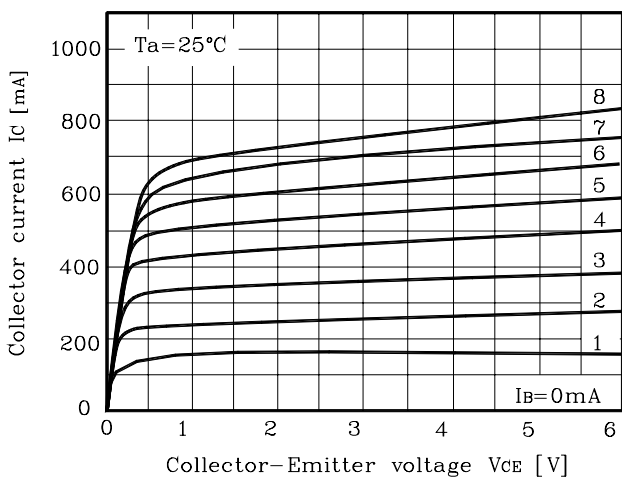


Fig. 4 $V_{CE(sat)} - I_C$

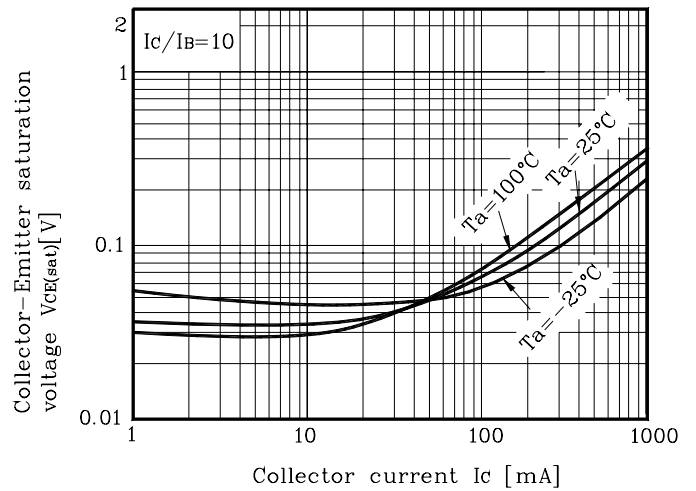
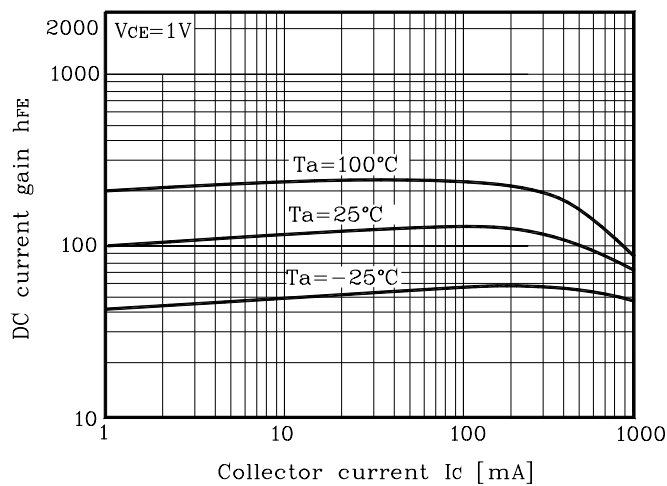
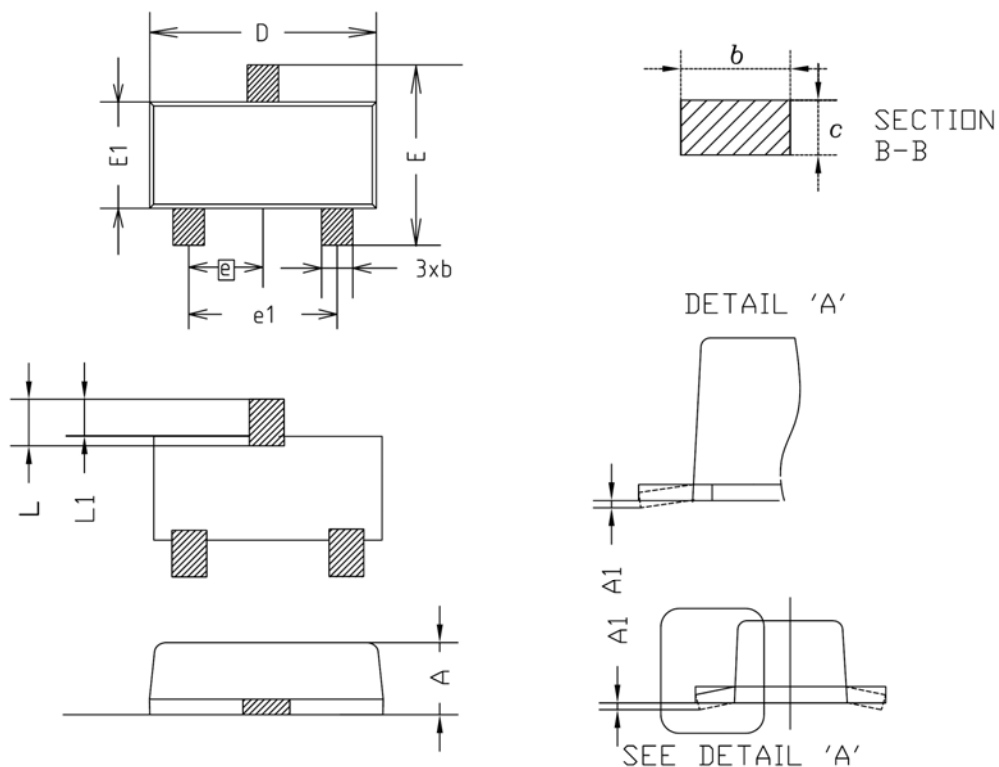


Fig. 5 $h_{FE} - I_C$

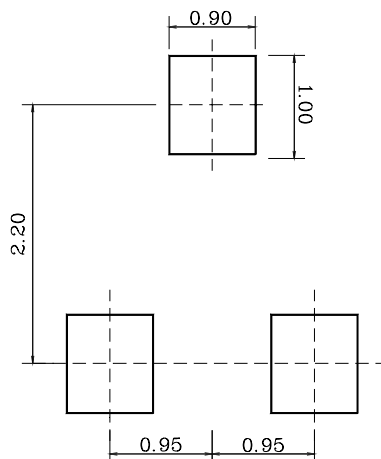


Outline Dimension



SYMBOL	MILLIMETER(mm)			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.80	0.90	1.00	
A1	0.00	-	0.10	
b	0.35	0.40	0.45	
c	0.10	0.15	0.20	
D	2.80	2.90	3.00	
E	2.30	2.40	2.50	
E1	1.50	1.60	1.70	
e	0.95BSC			
e1	1.80	1.90	2.00	
L	0.48	0.58	0.68	
L1	0.30	-	0.50	

※Recommend PCB solder land [Unit: mm]



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