

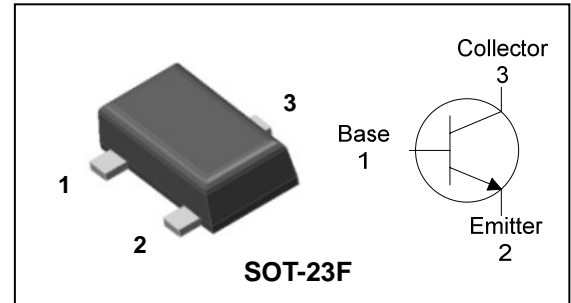
## Descriptions

- 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	NA   ① ② ③	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	$BV_{CEO}$	$I_C = 1\text{mA}, I_E = 0$	35	-	-	V
Base-Emitter turn on voltage	$V_{BE(ON)}$	$V_{CE} = 1\text{V}, I_C = 300\text{mA}$	-	-	1.2	V
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}$	-	-	700	mV
Collector cut-off current	$I_{CBO}$	$V_{CB} = 25\text{V}, I_E = 0$	-	-	100	nA
DC current gain	$h_{FE}^*$	$V_{CE} = 1\text{V}, I_C = 100\text{mA}$	100	-	630	-
Transition frequency	$f_T$	$V_{CB} = 5\text{V}, I_C = 10\text{mA}$	-	100	-	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$	-	16	-	pF

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

Electrical Characteristic Curves

Fig. 1  $P_C - T_a$

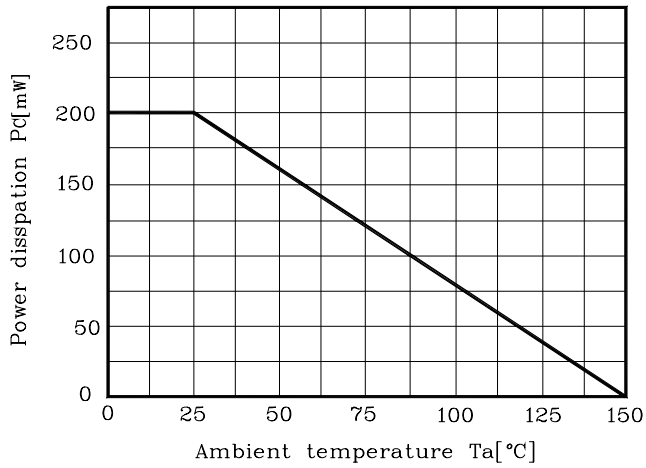


Fig. 2  $I_C - V_{BE}$

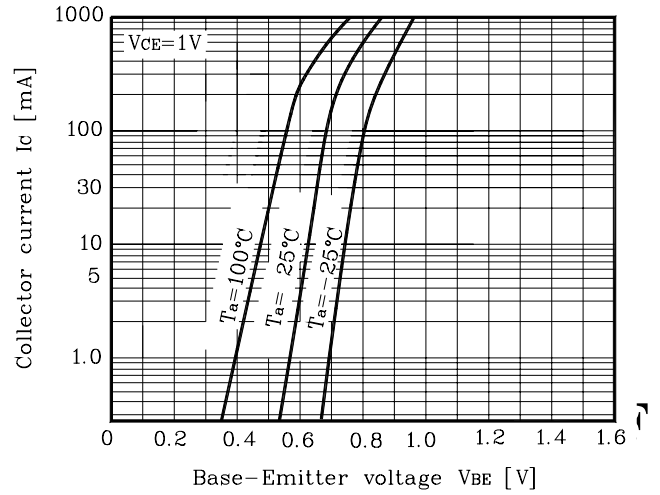


Fig. 3  $I_C - V_{CE}$

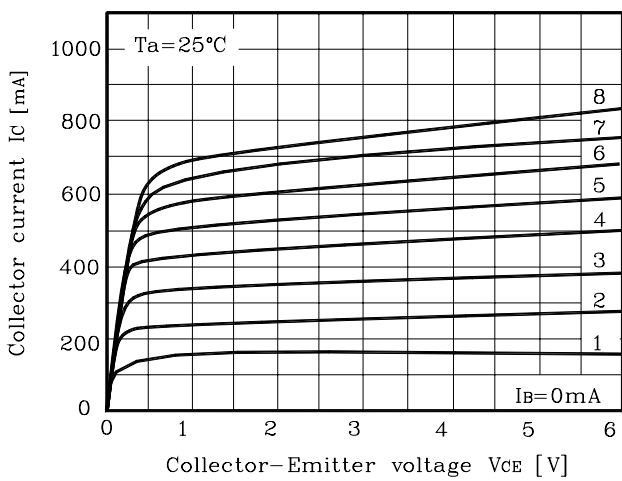


Fig. 4  $V_{CE(sat)} - I_C$

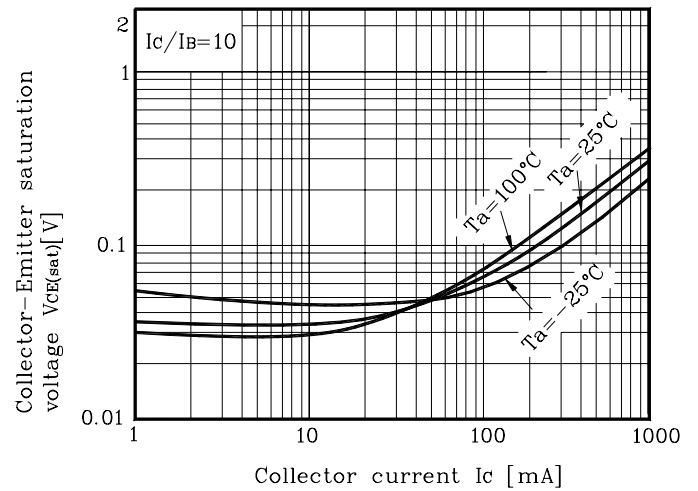
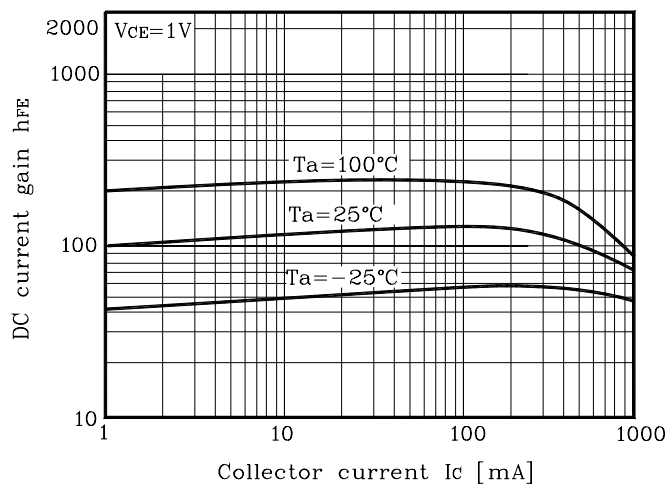
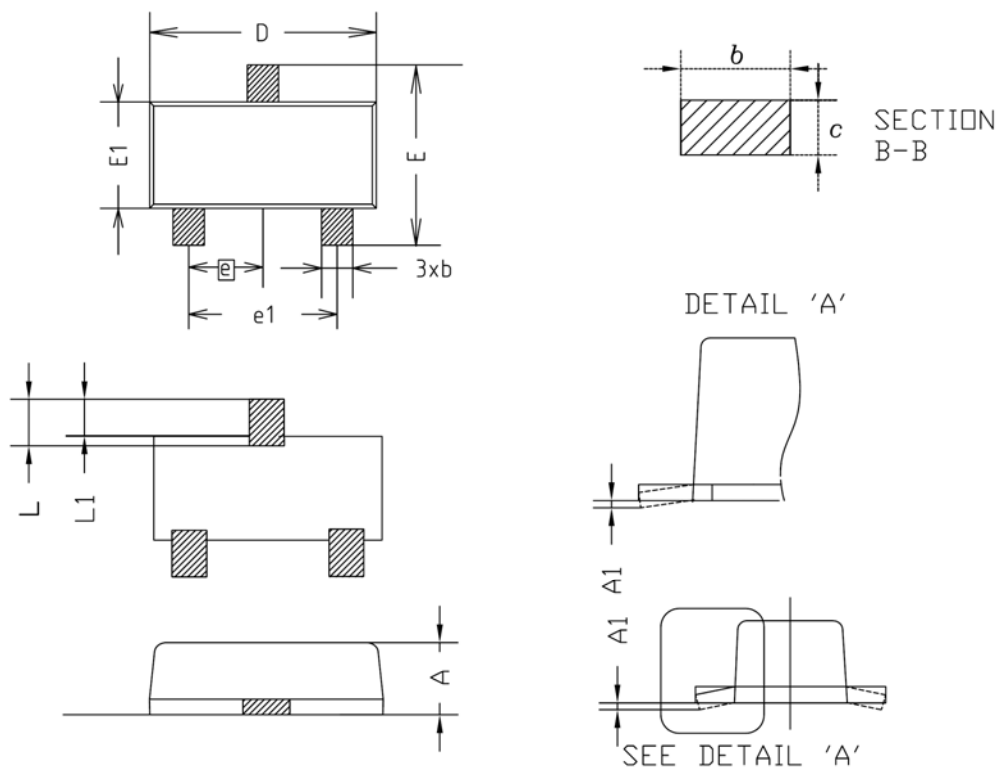


Fig. 5  $h_{FE} - I_C$

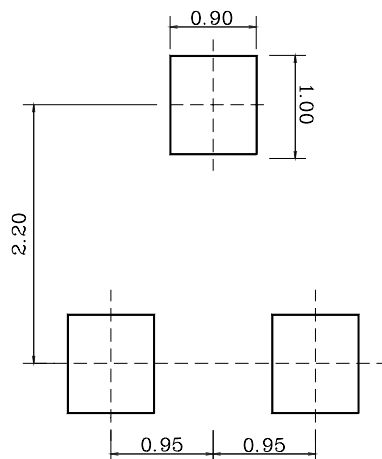


Outline Dimension



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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