

Descriptions

- High current application
- Switching application

Features

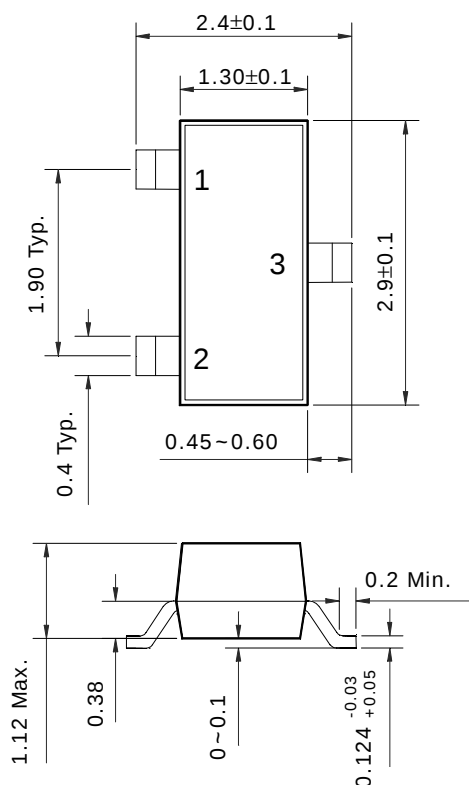
- Suitable for AF-Driver stage and low power output stages
- Complementary Pair with BC817

Ordering Information

Type NO.	Marking	Package Code0
BC807	LA□	SOT-23
□ : 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}	-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

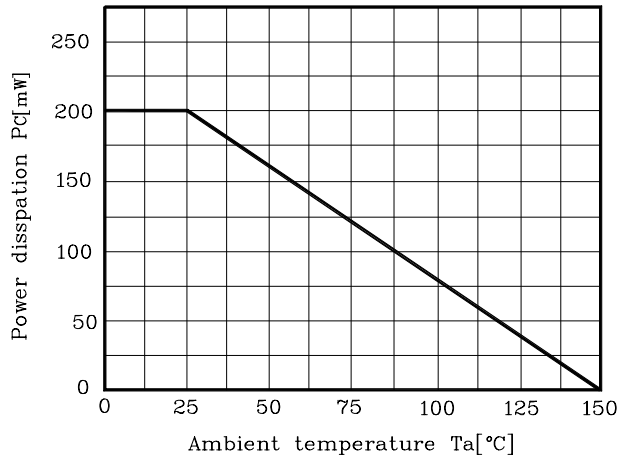
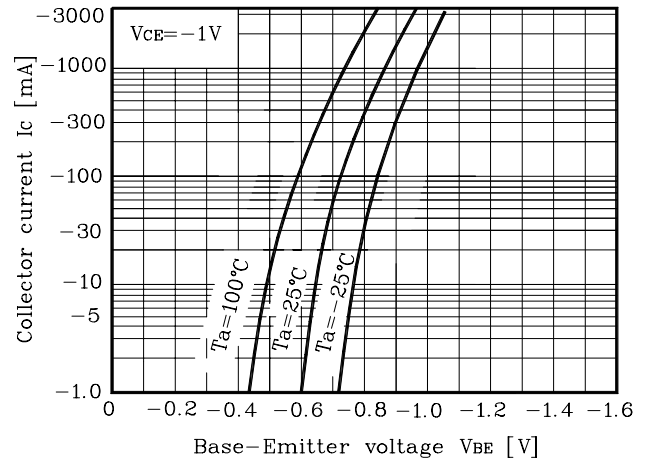
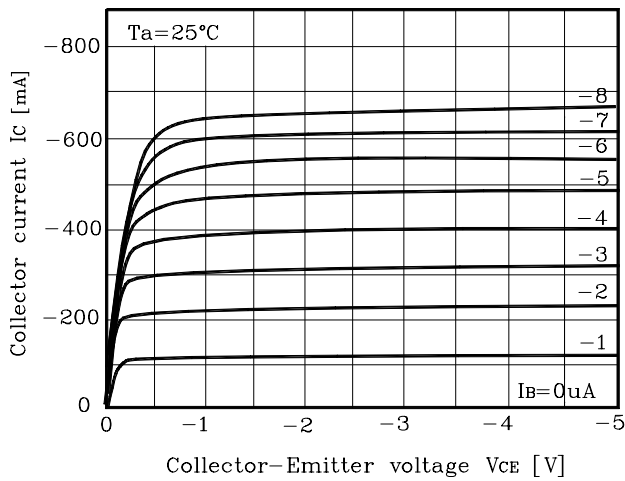
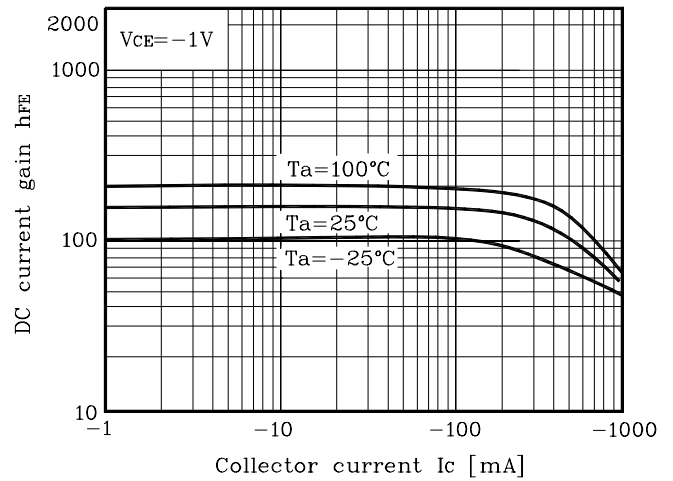
Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Emitter breakdown voltage	BV_{CEO}	$I_C = -1\text{mA}$, $I_B = 0$	-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	$V_{CB} = -5\text{V}$, $I_E = 10\text{mA}$ $f = 100\text{MHz}$	-	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 h_{FE} - I_C Fig. 5 $V_{CE(sat)}$ - I_C 