KODENSHI AUK

# BC807

**PNP Silicon Transistor**

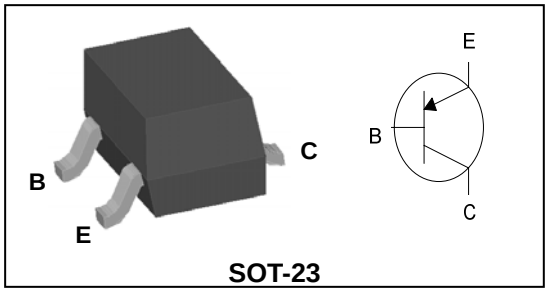
## Descriptions

- High current application
- Switching application

## Features

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

## PIN Connection




**SOT-23**

## Ordering Information

| Type NO. | Marking | Package Code0 |
|---|---|---|
| BC807 | LA □ □ (① ② ③) | SOT-23 |

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, $I_B$=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, $I_E$=10mA f=100MHz | - | 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 Pc-Ta**

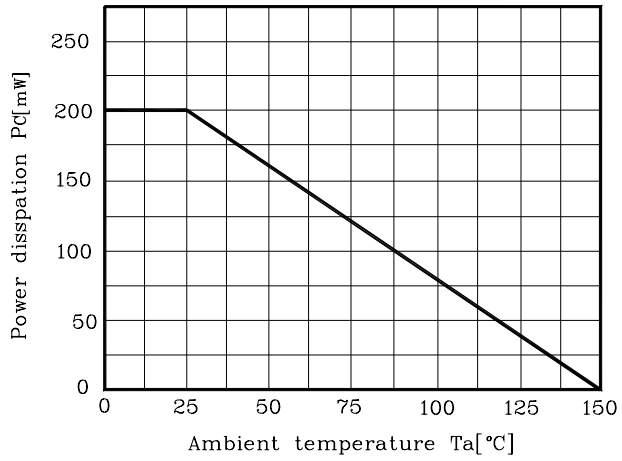



**Fig. 2 $I_C$ -$V_{BE}$**

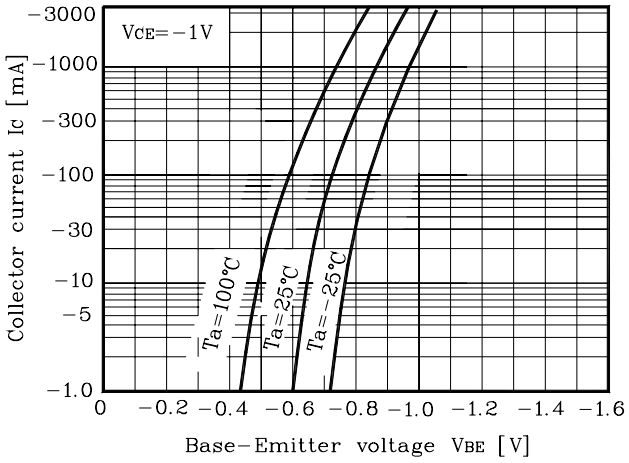



**Fig. 3 $I_C$ - $V_{CE}$**

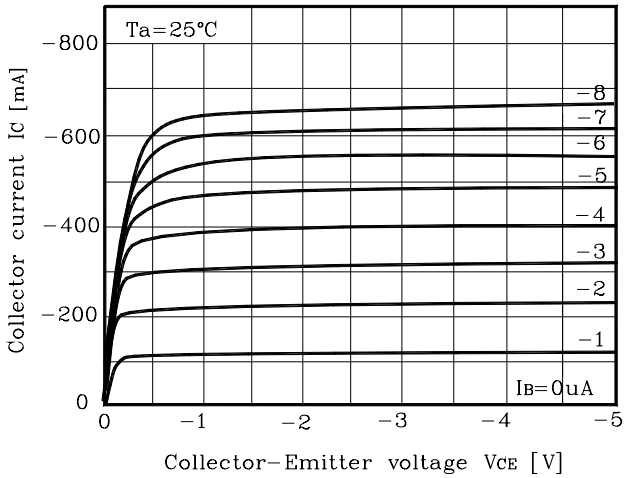



**Fig. 4 $h_{FE}$ - $I_C$**

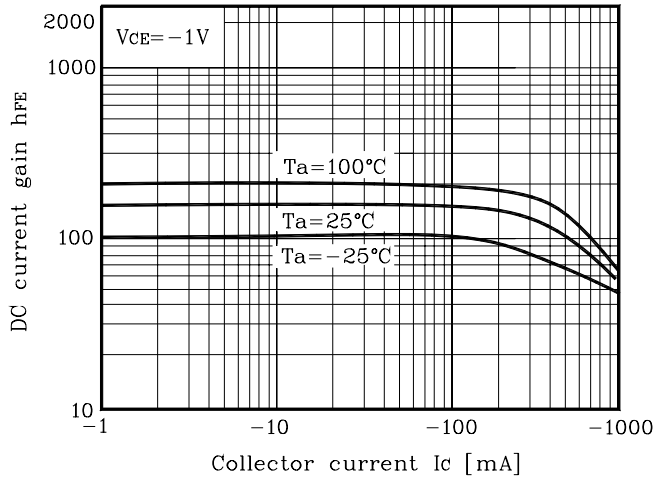
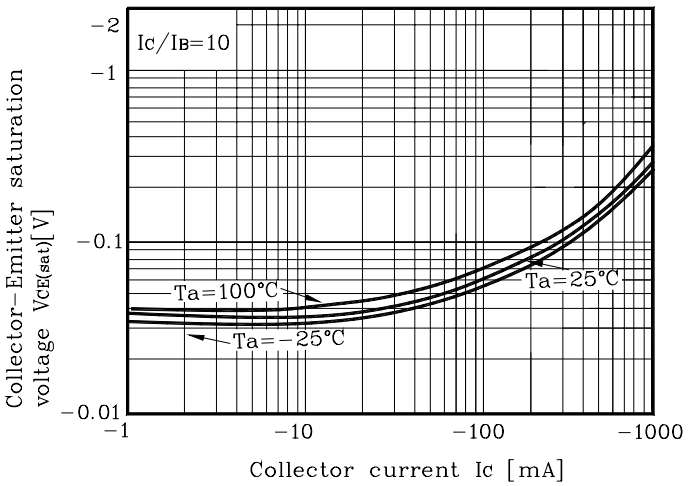
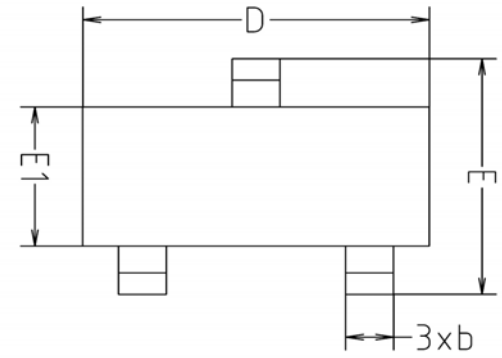
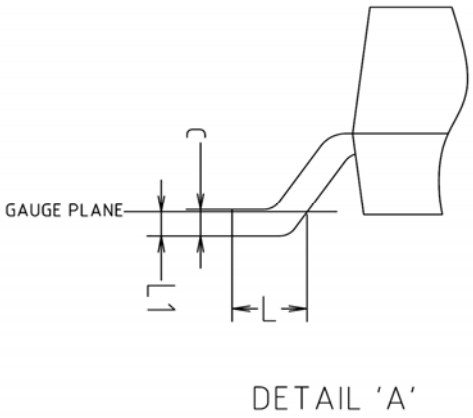


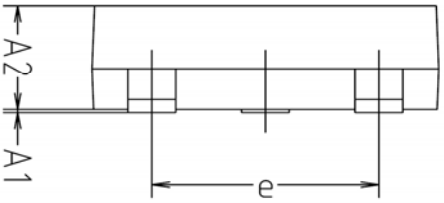

**Fig. 5 $V_{CE(sat)}$ - $I_C$**

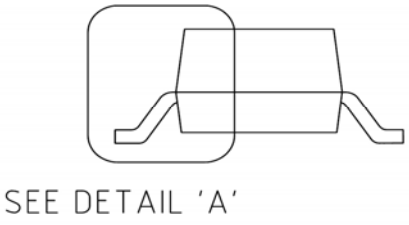


## Outline Dimension



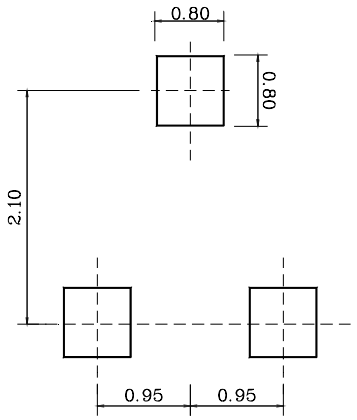




| SYMBOL | MILLIMETERS | | | NOTE |
|---|---|---|---|---|
| | MINIMUM | NOMINAL | MAXIMUM | |
| A1 | 0.00 | - | 0.10 | |
| A2 | 0.82 | - | 1.02 | |
| b | 0.39 | 0.42 | 0.45 | |
| c | 0.09 | 0.12 | 0.15 | |
| D | 2.80 | 2.90 | 3.00 | |
| E | 2.20 | 2.40 | 2.60 | |
| E1 | 1.20 | 1.30 | 1.40 | |
| e | 1.90BSC | | | |
| L | 0.20 | - | - | |
| L1 | 0.12BSC | | | |

**※Recommend PCB solder land [Unit: mm]**



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