

产品规格书

| 批 准 | 审 核 | 校 核 | 编 制 |
|------------|-----|------------|------------|
| 纪春华 | / | 朴致均 | 郑羿 |
| 2018.07.24 | / | 2018.07.24 | 2018.07.24 |

规格书更改履历:

| 序号 | 更改内容 | 履历号 | 更改时间 | 责任人 |
|----|-------------|-----|------------|-----|
| 1 | 新规制定 | 000 | 2018.03.28 | 郑羿 |
| 2 | 增加封面 | 001 | 2018.07.24 | 郑羿 |
| 3 | 增加 MARK 丝印名 | 002 | 2018.08.13 | 郑羿 |
| | | | | |

Descriptions

- General purpose application
- Switching application

Features

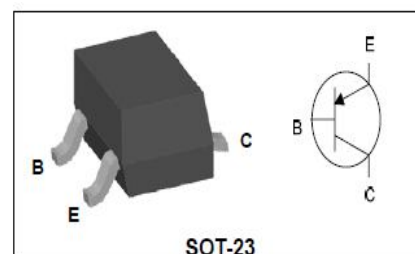
- High voltage: $V_{CEO} = -55V$
- Complementary pair with KBC846

Ordering Information

| Type NO. | Marking | Package Code |
|----------|----------|--------------|
| KBC856 | TA □ □ • | SOT-23 |
| HKBC856 | KX □ □ • | SOT-23 |
| | ① ② ③ | |

① Device Code ② HFE Rank ③ Year & Week Code • Dalian

PIN Connection



Absolute maximum ratings

$T_a = 25^\circ C$

| Characteristic | Symbol | Ratings | Unit |
|---------------------------|-----------|---------|------------|
| Collector-Base voltage | V_{CBO} | -80 | V |
| Collector-Emitter voltage | V_{CEO} | -55 | V |
| Emitter-base voltage | V_{EBO} | -5 | V |
| Collector current | I_C | -100 | mA |
| Collector dissipation | P_C | 200 | mW |
| Junction temperature | T_j | 150 | $^\circ C$ |
| Storage temperature range | T_{stg} | -55~150 | $^\circ C$ |

Electrical Characteristics

$T_a = 25^\circ C$

| Characteristic | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|--------------------------------------|---------------|---|------|------|------|------|
| Collector-Emitter breakdown voltage | BV_{CEO} | $I_C = -2mA, I_B = 0$ | -55 | - | - | V |
| Base-Emitter turn on voltage | $V_{BE(ON)}$ | $V_{CE} = -5V, I_C = -2mA$ | - | - | -700 | mV |
| Base-Emitter saturation voltage | $V_{BE(sat)}$ | $I_C = -100mA, I_B = -5mA$ | - | -900 | - | mV |
| Collector-Emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -100mA, I_B = -5mA$ | - | - | -650 | mV |
| Collector cut-off current | I_{CBO} | $V_{CB} = -35V, I_E = 0$ | - | - | -15 | nA |
| DC current gain | h_{FE}^* | $V_{CE} = -5V, I_C = -2mA$ | 110 | - | 800 | - |
| Transition frequency | f_T | $V_{CE} = -5V, I_C = -10mA$ | - | 150 | - | MHz |
| Collector output capacitance | C_{ob} | $V_{CB} = -10V, I_E = 0, f = 1MHz$ | - | - | 4.5 | pF |
| Noise figure | NF | $V_{CE} = -5V, I_C = -200\mu A, f = 1KHz, R_g = 2K\Omega$ | - | - | 10 | dB |

* : h_{FE} rank / A : 110 ~ 220, B : 200 ~ 450, C : 420 ~ 800

Electrical Characteristic Curves

Fig. 1 P_C - T_a

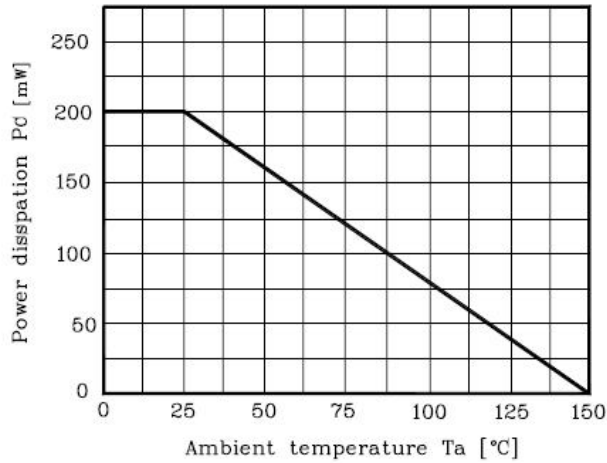


Fig. 2 I_C - V_{BE}

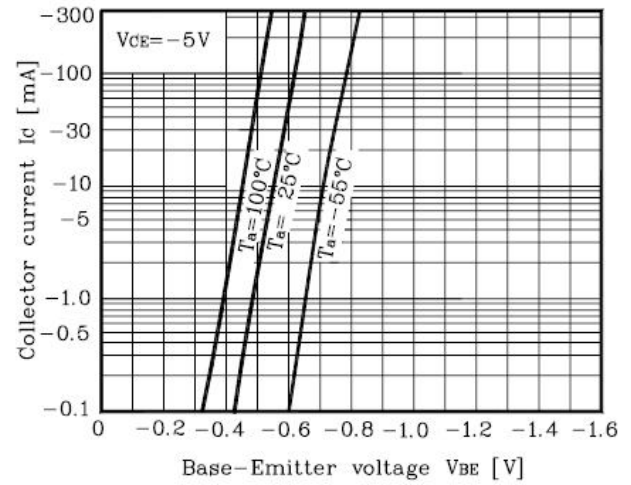


Fig. 3 I_C - V_{CE}

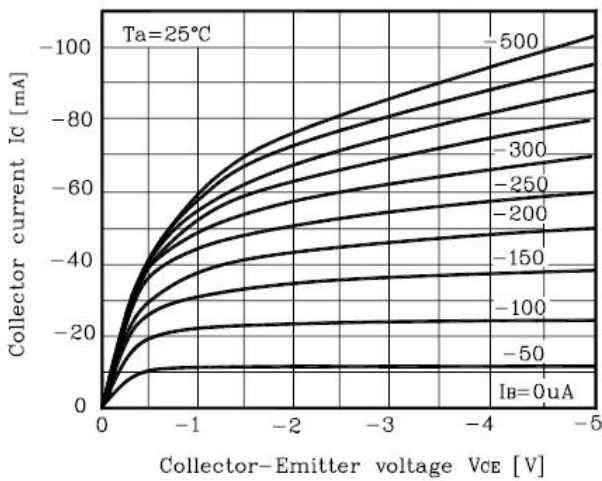


Fig. 4 h_{FE} - I_C

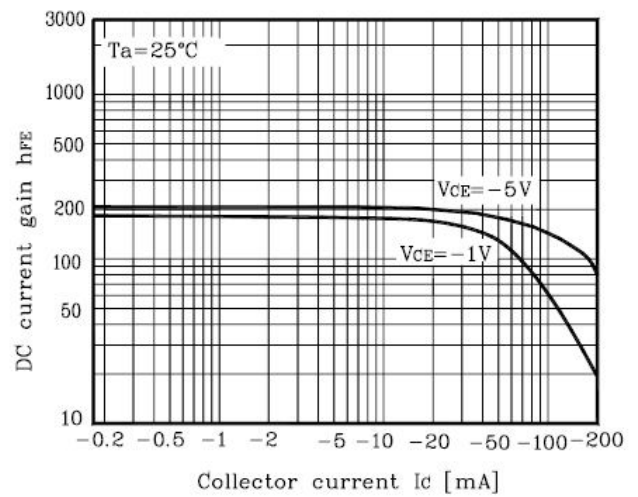
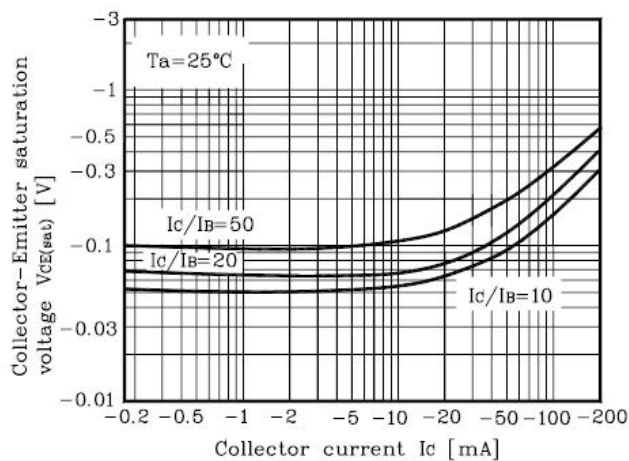
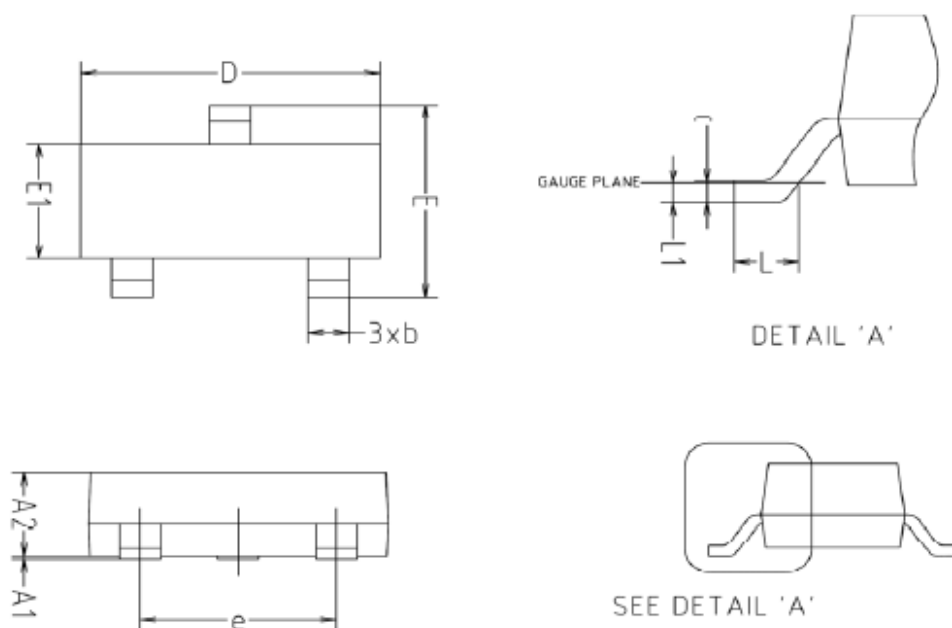


Fig. 5 $V_{CE(sat)}$ - I_C

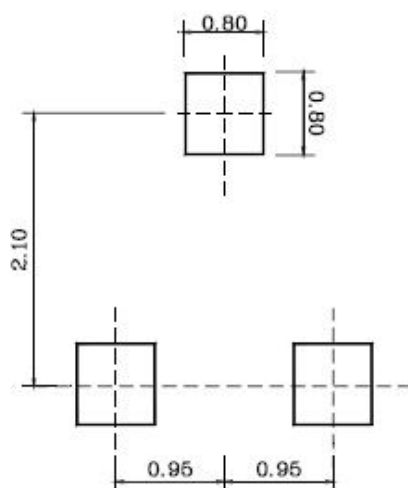


Outline Dimension



| 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]



The AUK Dalian Corp. products are intended for the use as components in general electronic equipment (Office and communication equipment, measuring equipment, home appliance, etc.).

Please make sure that you consult with us before you use these AUK Dalian Corp. products in equipments which require high quality and / or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, transportation, combustion control, all types of safety device, etc.). AUK Dalian Corp. cannot accept liability to any damage which may occur in case these AUK Dalian Corp. products were used in the mentioned equipments without prior consultation with AUK Dalian Corp..

Specifications mentioned in this publication are subject to change without notice.