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電源管理



顯示驅動



二三極管



LDO穩壓器



觸摸芯片



MOS管



運算放大器



存儲芯片



MCU



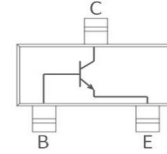
串口通信

## BC846A-TD

產品規格說明書

## ◆ Features

Ideally suited for automatic insertion.  
For switching and AF amplifier applications.



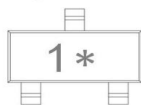
## ◆ Absolute Maximum Ratings(Ta=25℃)

| Symbol                            | Parameter                                        | Part                    | Value          | Unit |
|-----------------------------------|--------------------------------------------------|-------------------------|----------------|------|
| V <sub>CBO</sub>                  | Collector-Base Voltage                           | BC846<br>BC847<br>BC848 | 80<br>50<br>30 | V    |
| V <sub>CEO</sub>                  | Collector-Emitter Voltage                        | BC846<br>BC847<br>BC848 | 65<br>45<br>30 | V    |
| V <sub>EBO</sub>                  | Emitter-Base Voltage                             |                         | 6              | V    |
| I <sub>C</sub>                    | Collector Current                                |                         | 100            | mA   |
| P <sub>C</sub>                    | Collector Power Dissipation                      |                         | 200            | mW   |
| R <sub>ΘJA</sub>                  | Thermal Resistance From Junction To Ambient      |                         | 625            | ℃/W  |
| T <sub>J</sub> , T <sub>stg</sub> | Operation Junction And Storage Temperature Range |                         | -55~+150       | ℃    |

## ◆ Electrical Characteristics (Ta=25℃ unless otherwise specified)

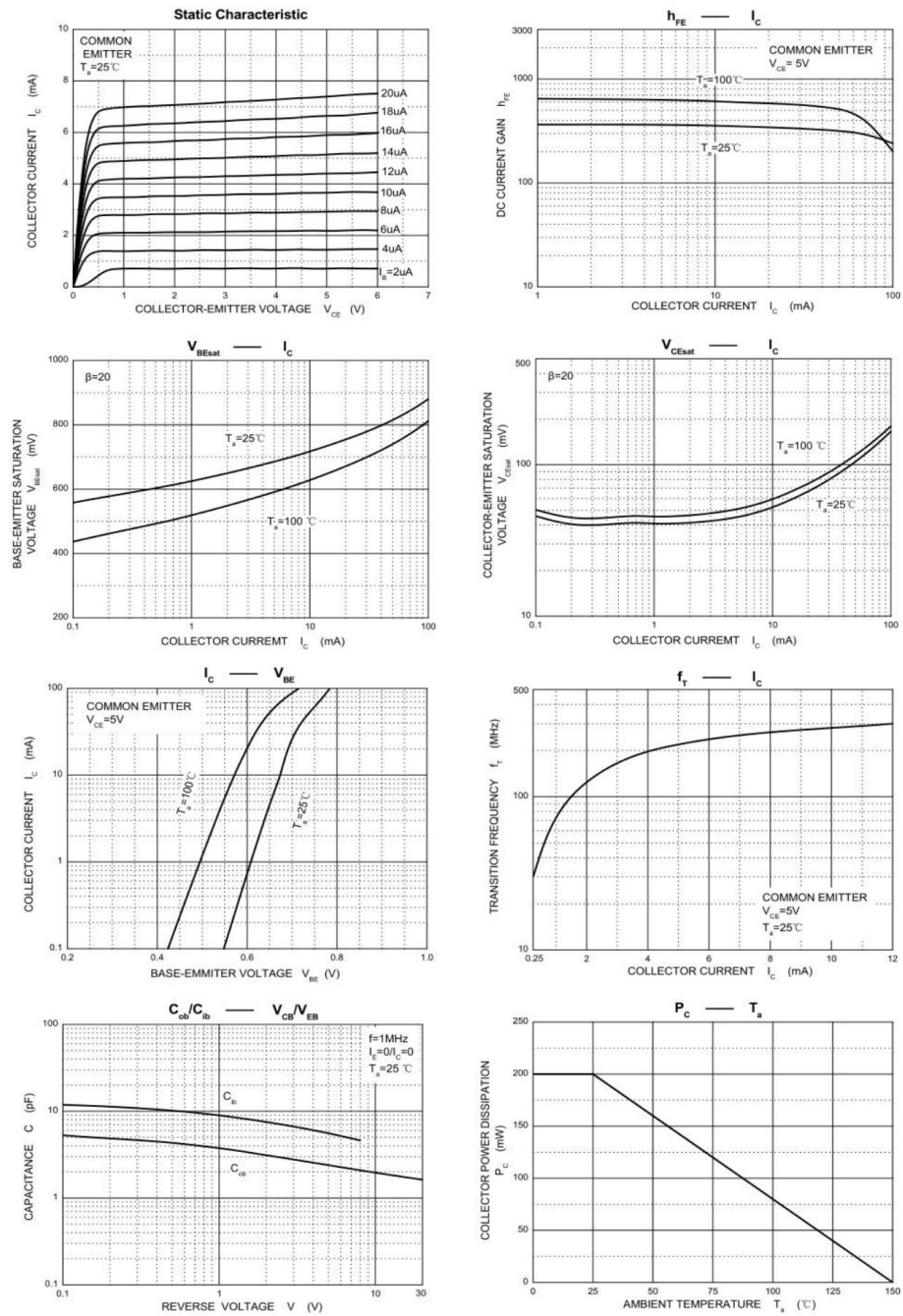
| Symbol               | Parameter                            |                                                                      | Test conditions                                                                                                               | Min               | Max               | Unit |
|----------------------|--------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|------|
| V <sub>(BR)CBO</sub> | Collector-base breakdown voltage     | BC846<br>BC847<br>BC848                                              | I <sub>C</sub> =10μA, I <sub>E</sub> =0                                                                                       | 80<br>50<br>30    |                   | V    |
| V <sub>(BR)CEO</sub> | Collector-emitter breakdown voltage  | BC846<br>BC847<br>BC848                                              | I <sub>C</sub> =10mA, I <sub>B</sub> =0                                                                                       | 65<br>45<br>30    |                   | V    |
| V <sub>(BR)EBO</sub> | Emitter-base breakdown voltage       |                                                                      | I <sub>E</sub> =10μA, I <sub>C</sub> =0                                                                                       | 6                 |                   | V    |
| I <sub>CBO</sub>     | Collector cut-off current            | BC846<br>BC847<br>BC848                                              | V <sub>CB</sub> =70V, I <sub>E</sub> =0<br>V <sub>CB</sub> =50V, I <sub>E</sub> =0<br>V <sub>CB</sub> =30V, I <sub>E</sub> =0 |                   | 100               | nA   |
| I <sub>EBO</sub>     | Emitter cut-off current              |                                                                      | V <sub>EB</sub> =5V, I <sub>C</sub> =0                                                                                        |                   | 100               | nA   |
| h <sub>FE</sub>      | DC current gain                      | BC846A BC847A BC848A<br>BC846B BC847B BC848B<br>BC846C BC847C BC848C | V <sub>CE</sub> =5V, I <sub>C</sub> =2mA                                                                                      | 110<br>200<br>420 | 220<br>450<br>800 |      |
| V <sub>CE(sat)</sub> | Collector-emitter saturation voltage |                                                                      | I <sub>C</sub> =100mA, I <sub>B</sub> =5mA                                                                                    |                   | 0.5               | V    |
| V <sub>BE(sat)</sub> | Base-emitter saturation voltage      |                                                                      |                                                                                                                               |                   | 1.1               | V    |
| f <sub>T</sub>       | Transition frequency                 |                                                                      | V <sub>CE</sub> =5V, I <sub>C</sub> =10mA,<br>f=30MHz                                                                         | 100               |                   | MHz  |
| C <sub>ob</sub>      | Collector output capacitance         |                                                                      | V <sub>CB</sub> =10V, f=1MHz                                                                                                  |                   | 4.5               | pF   |

## ◆ Marking

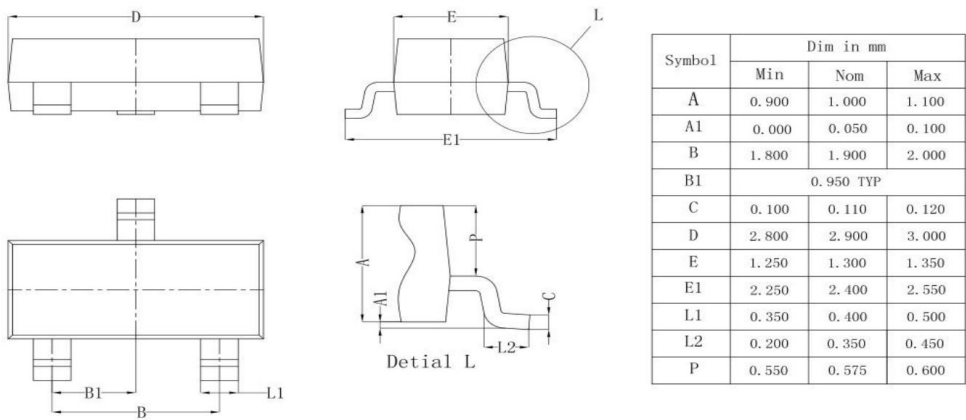


BC846A=1A; BC846B=1B; BC846C=1C;  
BC847A=1E; BC847B=1F; BC847C=1G;  
BC848A=1J; BC848B=1K; BC848C=1L;

## ◆ Typical Characteristics



◆ SOT-23 Package Outline Dimensions



◆ Packaging SPEC.

| Units      |                                    |                 |                       |                 |
|------------|------------------------------------|-----------------|-----------------------|-----------------|
| Units/Reel | Reels/Inner Box                    | Units/Inner Box | Inner Boxes/Outer Box | Units/Outer Box |
| 3,000      | 15                                 | 45,000          | 4                     | 180,000         |
| Reel       | Dimension (unit: mm <sup>3</sup> ) |                 |                       |                 |
|            | Inner Box                          |                 | Outer Box             |                 |
| 7" × 8     | 190×190×190                        |                 | 400×400×210           |                 |