

# 产品规格书

批准	审核	校核	编制
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2018.07.05	2018.07.05	2018.07.05	2018.07.05

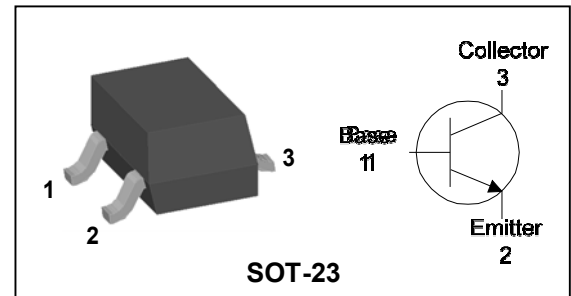
## 规格书更改履历:

序号	更改内容	履历号	更改时间	责任人
1	新规制定	000	2016.06.29	郑羿
2	增加Taping标准	001	2018.07.05	郑羿

## Descriptions

- General purpose application
- Switching application
- High voltage :  $V_{CEO}=45V$
- Complementary pair with KBC857

## PIN Connection



## Ordering Information

Type NO.	Marking	Package Code
KBC847	RR □ □ ① ② ③	SOT-23

① Device Code ② hFE Rank ③ Year&Week Code . Dalian

## Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	$V_{CBO}$	50	V
Collector-Emitter voltage	$V_{CEO}$	45	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	°C
Storage temperature	$T_{stg}$	-55~150	°C

## Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	$BV_{CBO}$	$I_C=100\mu A, I_E=0$	50	-	-	V
Collector-Emitter breakdown voltage	$BV_{CEO}$	$I_C=1mA, I_B=0$	45	-	-	V
Emitter-Base breakdown voltage	$BV_{EBO}$	$I_E=10\mu A, I_C=0$	5	-	-	V
Base-Emitter turn on voltage	$V_{BE(ON)}$	$V_{CE}=5V, I_C=2mA$	0.55	-	0.7	V
Base-Emitter saturation voltage	$V_{BE(sat)}$	$I_C=100mA, I_B=5mA$	-	0.9	1.1	V
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=5mA$	-	-	0.6	V
Collector-base cut-off current	$I_{CBO}$	$V_{CB}=35V, I_E=0$	-	-	15	nA
Collector-emitter cut-off current	$I_{CEO}$	$V_{CE}=30V, I_B=0$	-	-	1	uA
Emitter-base cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	100	nA
DC current gain	$h_{FE}^*$	$V_{CE}=5V, I_C=2mA$	110	-	800	-
Transition frequency	$f_T$	$V_{CE}=5V, I_C=10mA$ $f=100MHz$	-	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  $P_C - T_a$

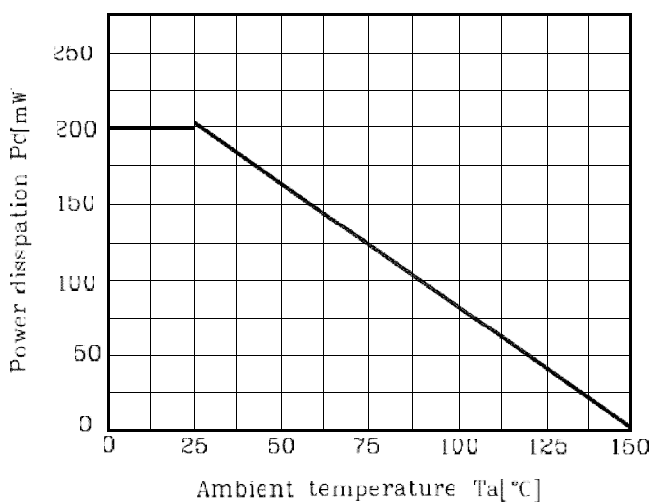


Fig. 2  $I_C - V_{BE}$

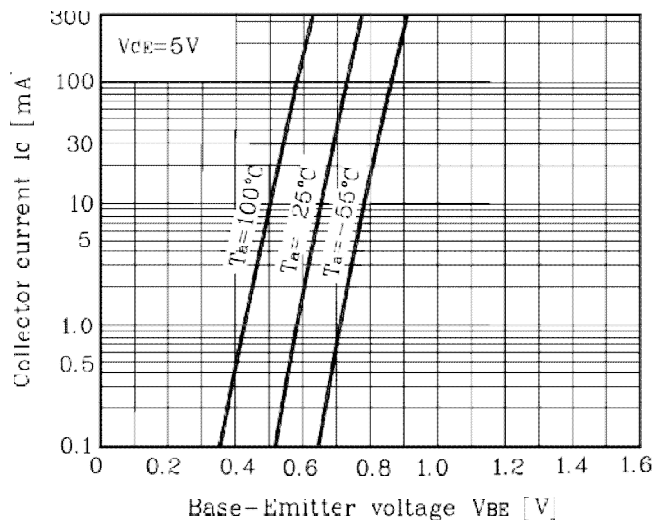


Fig. 3  $I_C - V_{CE}$

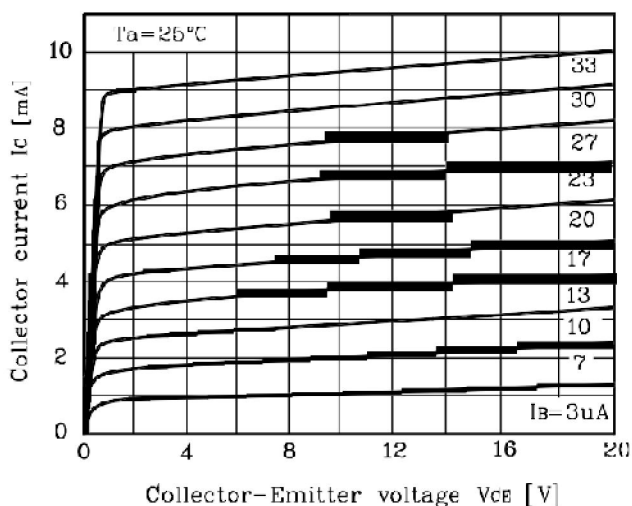


Fig. 4  $h_{FE} - I_C$

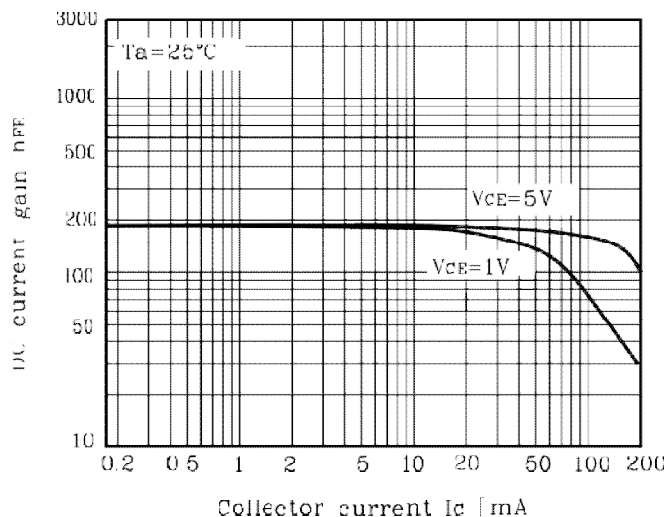
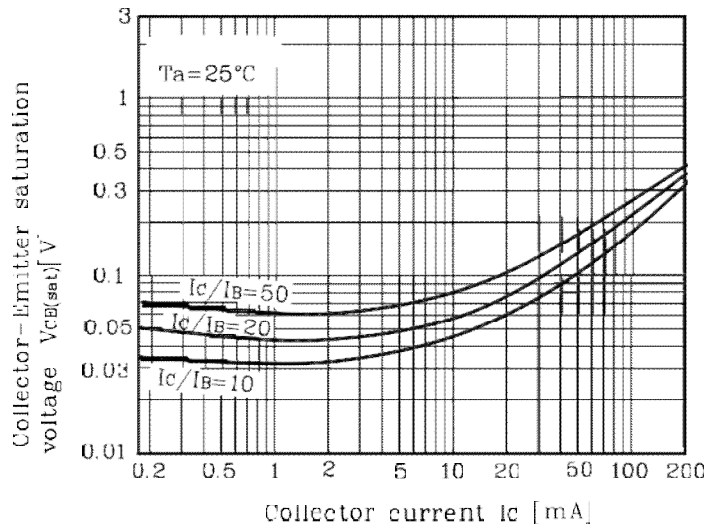
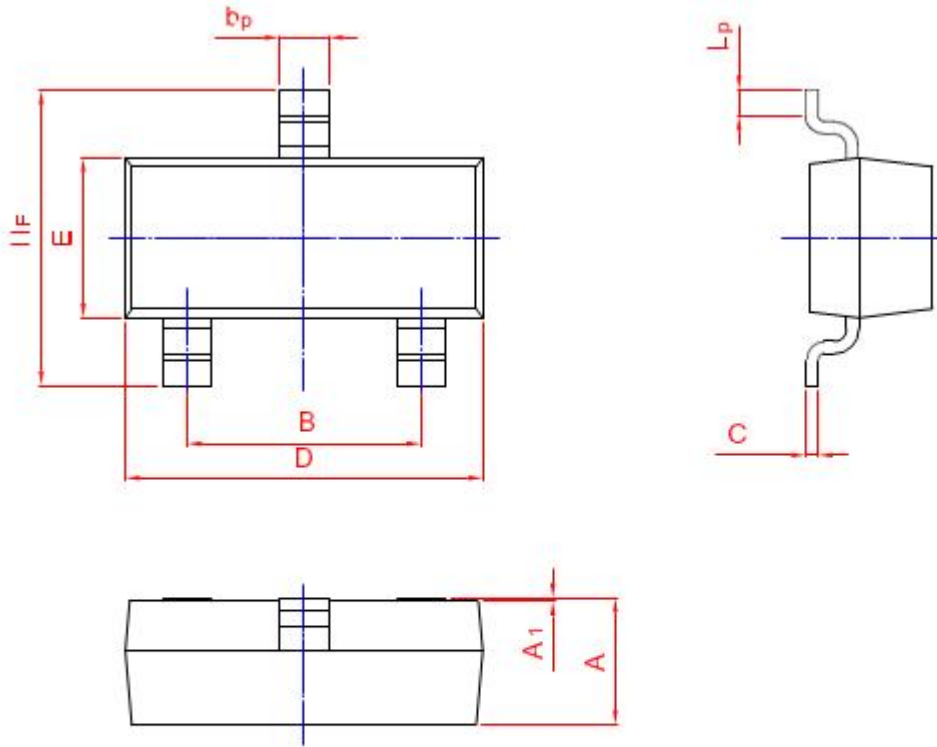


Fig. 5  $V_{CE(sat)} - I_C$



Outline Dimension



UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20

**KODENSHI AUK** SOT-23, SOT-23F Packing Specification

**1. Dimensions of reel** [Unit : mm]

Quantity : 3,000pieces

DVC : \_\_\_\_\_  
 LOT : \_\_\_\_\_ QTY : \_\_\_\_\_ SN : \_\_\_\_\_  
 W/D : \_\_\_\_\_ MADE IN XXXXXX

**2. Dimensions of tape**

Directions of Dimension: SECTION A - A', SECTION B - B'

**3. Taping format**

Unloaded Tape	SOT-23, SOT-23F Package	Unloaded tape	Sealing tape (Cover Tape)
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(END) (Start)

KSA-CSC000-003

**4. Dimensions of Box** [Unit : mm]

1) Inner Box (Loaded 10 reels)

Quantity : 3,000×10reel = 30Kpcs

2) Out Box

# 2-1 (loaded 4 inner boxes)  
Quantity : 30K×4reel=120Kpcs

# 2-2 (loaded 8 inner boxes)  
Quantity : 30K×8reel=240Kpcs

**Inner Box LABEL**

DVC : \_\_\_\_\_  
 LOT : \_\_\_\_\_ QTY : \_\_\_\_\_ SN : \_\_\_\_\_  
 W/D : \_\_\_\_\_ MADE IN XXXXXX

**Out Box LABEL**

DVC : \_\_\_\_\_  
 LOT No : \_\_\_\_\_ QTY : \_\_\_\_\_  
 BOX No : \_\_\_\_\_

**5. Packing flow**

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