

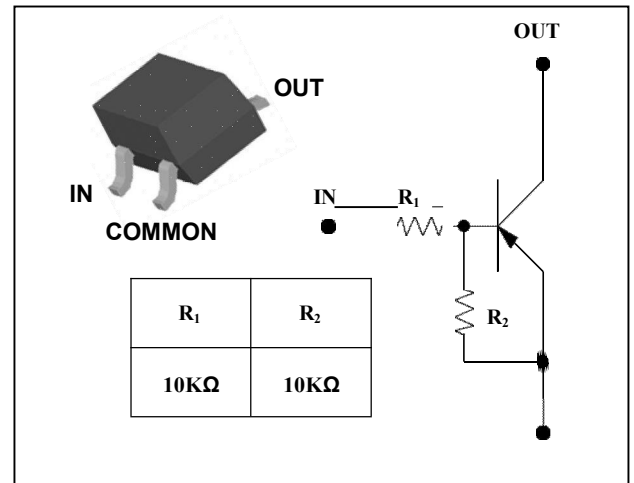
### Descriptions

- Switching application
- Interface circuit and driver circuit application

### Features

- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- High packing density

### PIN Connection



### Ordering Information

Type NO.	Marking	Package Code
KRA2202S	RA2 □. ① ②	SOT-23

① Device Code ② Year&Week Code. Dalian

### Absolute Maximum Ratings

(Ta=25 C)

Characteristic	Symbol	Rating	Unit
Output voltage	V <sub>O</sub>	-50	V
Input voltage	V <sub>I</sub>	-30, 10	V
Output current	I <sub>O</sub>	-100	mA
Power dissipation	P <sub>D</sub>	200	mW
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55 ~ 150	°C

### Electrical Characteristics

(Ta=25 C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output cut-off current	I <sub>O(OFF)</sub>	V <sub>O</sub> =-50V, V <sub>I</sub> =0	-	-	-500	nA
DC current gain	G <sub>I</sub>	V <sub>O</sub> =-5V, I <sub>O</sub> =-10mA	50	80	-	-
Output voltage	V <sub>O(ON)</sub>	I <sub>O</sub> =-10mA, I <sub>I</sub> =-0.5mA	-	-0.1	-0.3	V
Input voltage (ON)	V <sub>I(ON)</sub>	V <sub>O</sub> =-0.2V, I <sub>O</sub> =-5mA	-	-1.8	-2.4	V
Input voltage (OFF)	V <sub>I(OFF)</sub>	V <sub>O</sub> =-5V, I <sub>O</sub> =-0.1mA	-1.0	-1.2	-	V
Transition frequency	f <sub>T</sub>	V <sub>O</sub> =-10V, I <sub>O</sub> =-5mA, f=1MHz	-	200	-	MHz
Input current	I <sub>I</sub>	V <sub>I</sub> =-5V, I <sub>O</sub> =0	-	-	-0.88	mA
Input resistor (Input to base)	R <sub>1</sub>	-	7	10	13	KΩ
Input resistor (Base to common)	R <sub>2</sub>	-	7	10	13	KΩ

\* : Characteristic of transistor only

Electrical Characteristic Curves

Fig. 1  $P_c - T_a$

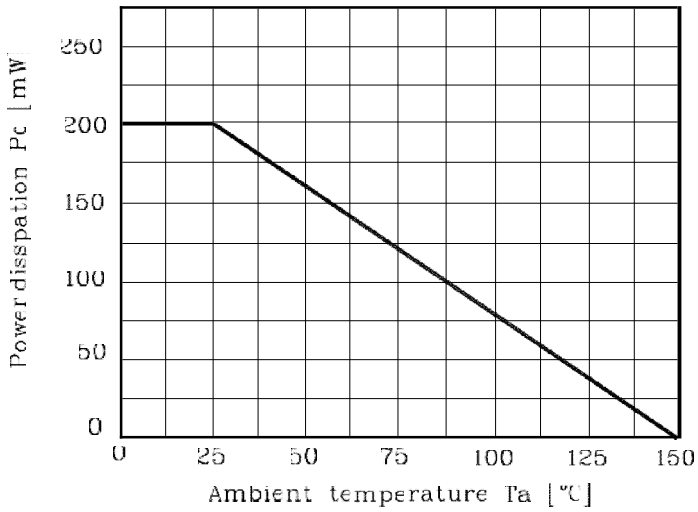


Fig. 2  $I_o - V_{I(ON)}$

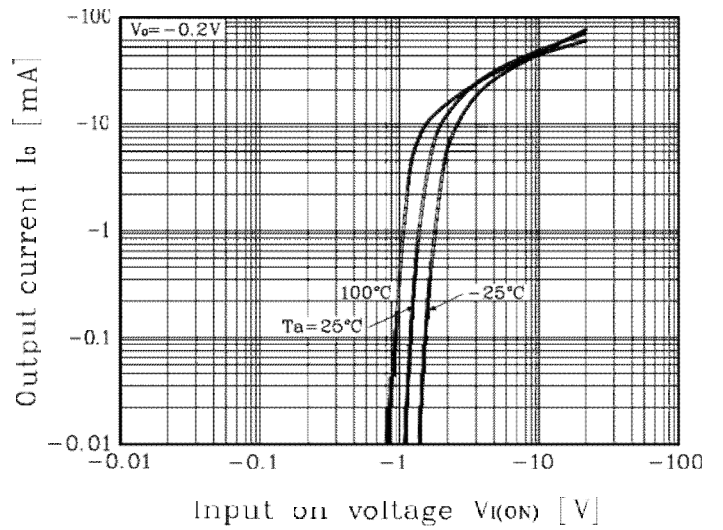


Fig. 3  $I_o - V_{I(OFF)}$

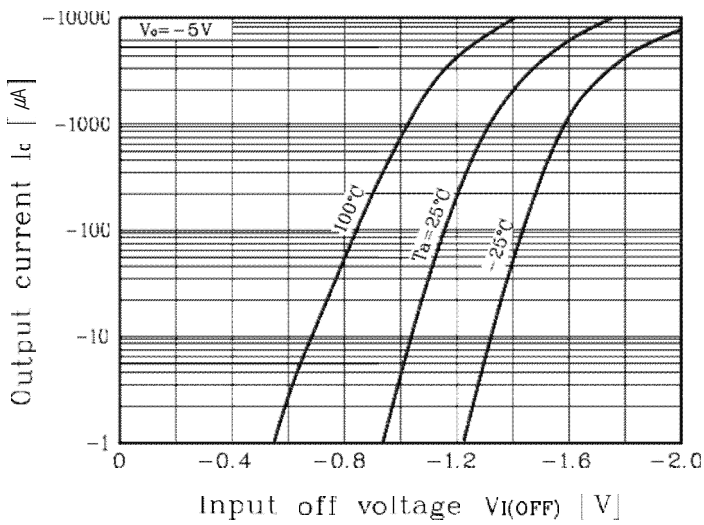
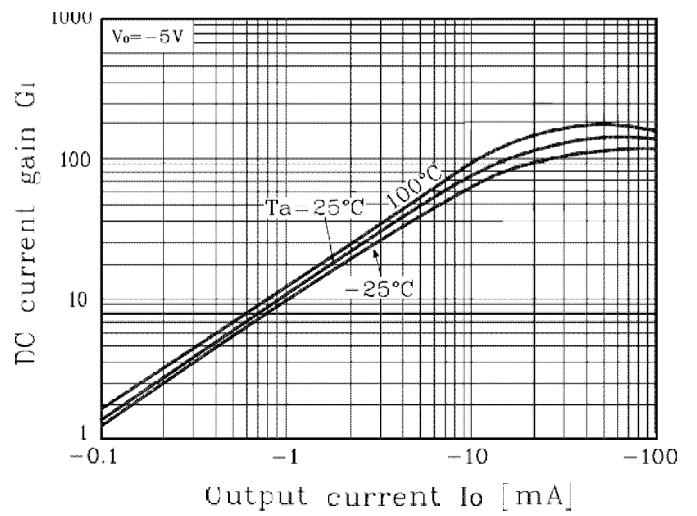
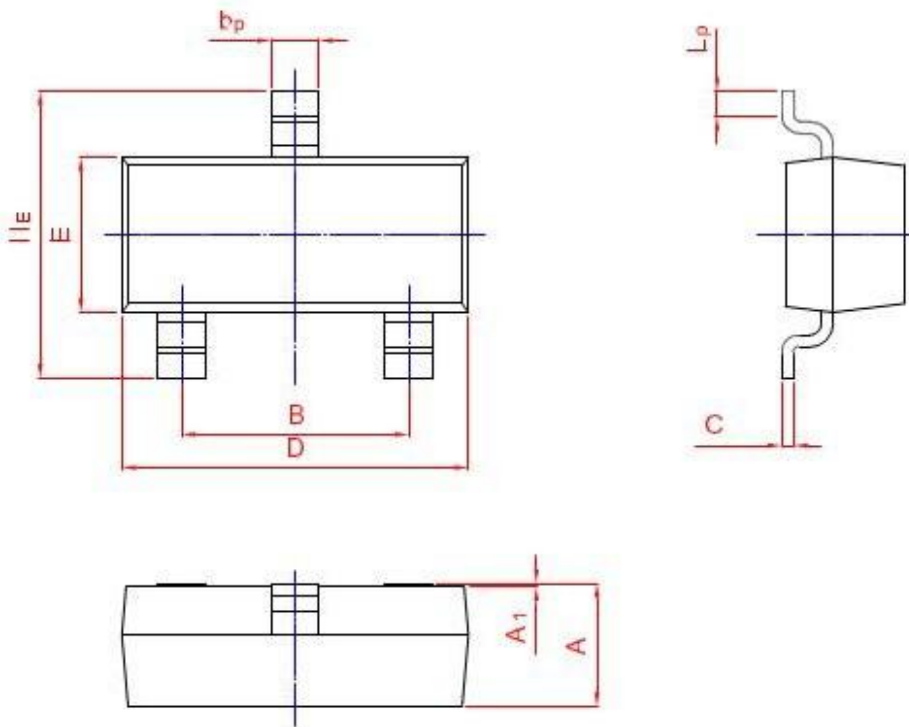


Fig. 4  $G_I - I_o$



Outline Dimension



UNIT	A	B	b <sub>p</sub>	C	D	E	H <sub>E</sub>	A <sub>1</sub>	L <sub>p</sub>
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

# Packing Specification

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

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

Quantity : 3,000pc/reel

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

**2. Dimensions of tape**

Quantity of boxes : \_\_\_\_\_

**3. Taping format**

Unloaded Tape	SOT-23, SOT-23F Package	Unloaded tape	Sealing tape (Cover Tape)
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**4. Dimensions of Box** [Unit : mm]

1) Inner Box (Loaded 10 reels)

Quantity : 3,000 × 10ea = 30Kpcs

2) Out Box

Quantity : 30K × 4ea = 120Kpcs

**Inner Box LABEL**

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

**Out Box LABEL**

DVC : \_\_\_\_\_  
LOT No : \_\_\_\_\_ QTY : \_\_\_\_\_ [Reel]  
BOX No : \_\_\_\_\_

**5. Packing flow**

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