

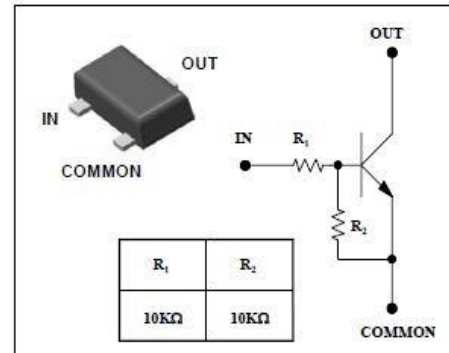
## Descriptions

- 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



## Package Code

## Ordering Information

Type NO.	Marking	Package Code
KRC1202SF	RC2 □ ① ②	SOT-23F
① Device Code ② Year&Week Code. Dalian		

## Absolute Maximum Ratings

(Ta=25 C)

Characteristic	Symbol	Rating	Unit
Output voltage	$V_O$	50	V
Input voltage	$V_I$	30, -10	V
Output current	$I_O$	100	mA
Power dissipation	$P_D$	200	mW
Junction temperature	$T_J$	150	°C
Storage temperature range	$T_{stg}$	-55 ~ 150	°C

## Electrical Characteristics

(Ta=25 C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output cut-off current	$I_{O(OFF)}$	$V_O=50V, V_I=0$	-	-	500	nA
DC current gain	$G_I$	$V_O=5V, I_O=10mA$	50	80	-	-
Output voltage	$V_{O(ON)}$	$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	V
Input voltage (ON)	$V_{I(ON)}$	$V_O=0.2V, I_O=5mA$	-	1.8	2.4	V
Input voltage (OFF)	$V_{I(OFF)}$	$V_O=5V, I_O=0.1mA$	1.0	1.2	-	V
Transition frequency	$f_T^*$	$V_O=10V, I_O=5mA, f=1MHz$	-	200	-	MHz
Input current	$I_I$	$V_I=5V, I_O=0$	-	-	0.88	mA
Input resistor (Input to base)	$R_1$	-	7	10	13	K $\Omega$
Input resistor (Base to common)	$R_2$	-	7	10	13	K $\Omega$

\* : Characteristic of transistor only

Electrical Characteristic Curves

Fig. 1  $I_o - V_{I(ON)}$

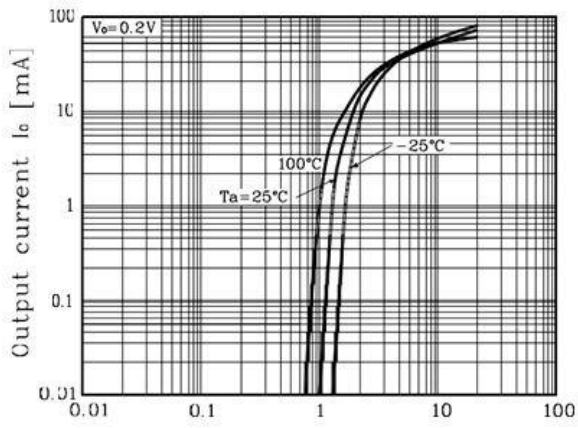


Fig. 2  $I_o - V_{I(OFF)}$

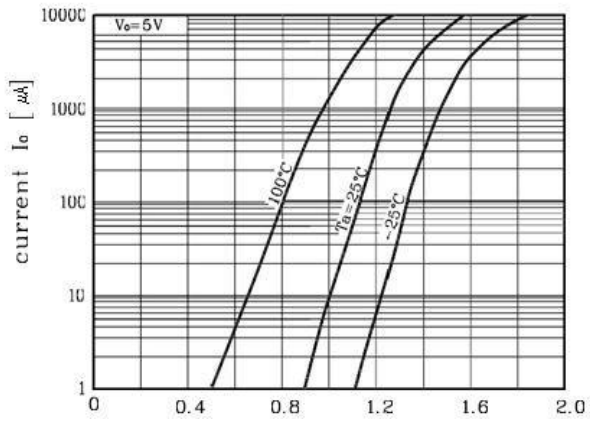
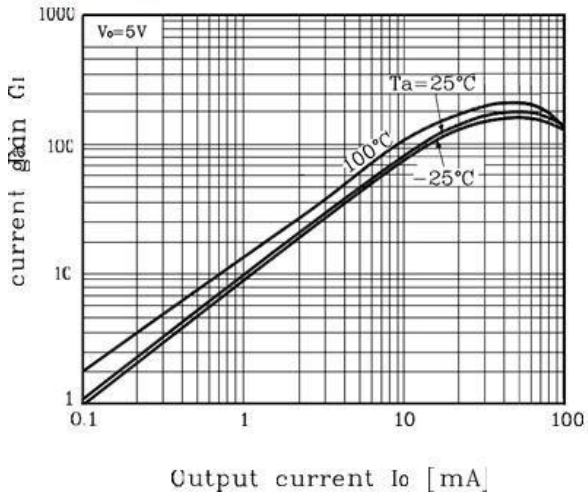
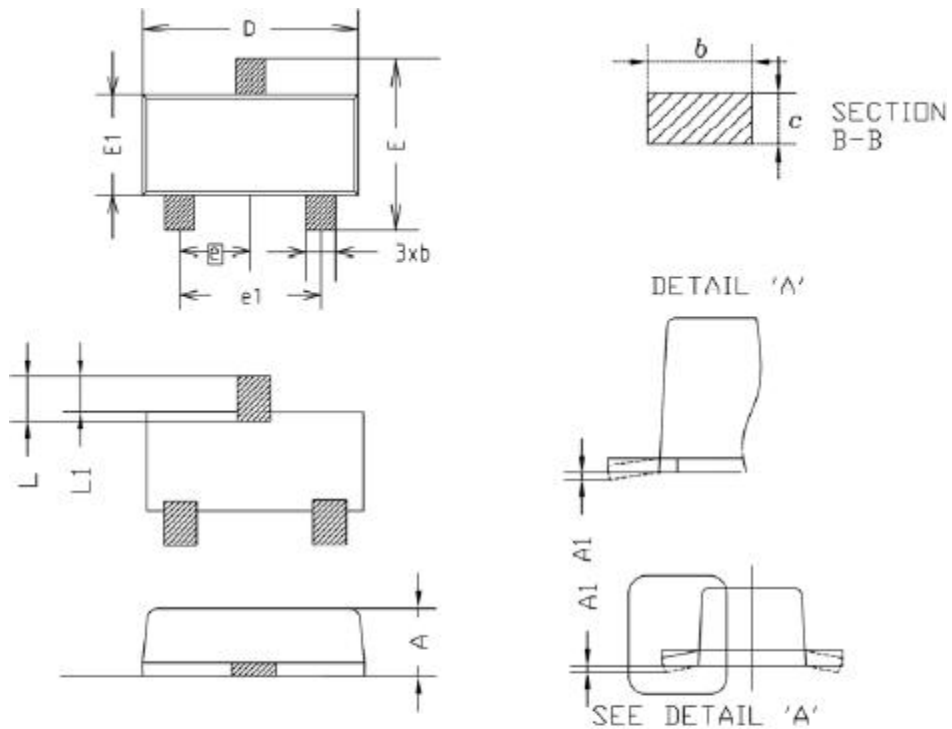


Fig. 3  $G_I - I_o$

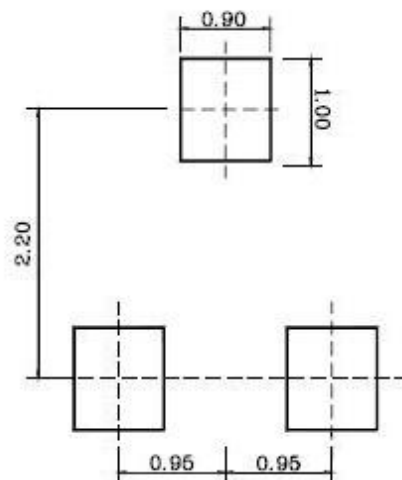


## Outline Dimension



SYMBOL	MILLIMETER(mm)			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
Δ	0.80	0.80	1.00	
A1	0.00	-	0.10	
b	0.35	0.40	0.45	
c	0.10	0.15	0.20	
D	2.80	2.90	3.00	
E	2.30	2.40	2.50	
E1	1.50	1.60	1.70	
e	0.95BSC			
e1	1.80	1.90	2.00	
L	0.48	0.58	0.68	
L1	0.30	-	0.50	

※Recommend PCB solder land [Unit: mm]



# Packing Specification

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

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

Quantity : 3,000pc/reel

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

**2. Dimensions of tape**

Quantity of dispenser

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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KSA-CSC000-003

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

1) Inner Box (Loaded 10 reels)

Quantity : 1,000×10reel = 10Kpc

Inner Box LABEL

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

2) Out Box

# 2-1 (Loaded 4 inner boxes)  
Quantity : 20K×4reel=120Kpc

# 2-2 (Loaded 8 inner boxes)  
Quantity : 20K×8reel=240Kpc

Out Box LABEL

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

**5. Packing flow**

KSA-CSC000-003

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