

## Descriptions

- Switching application
- Interface circuit and driver circuit application

## Features

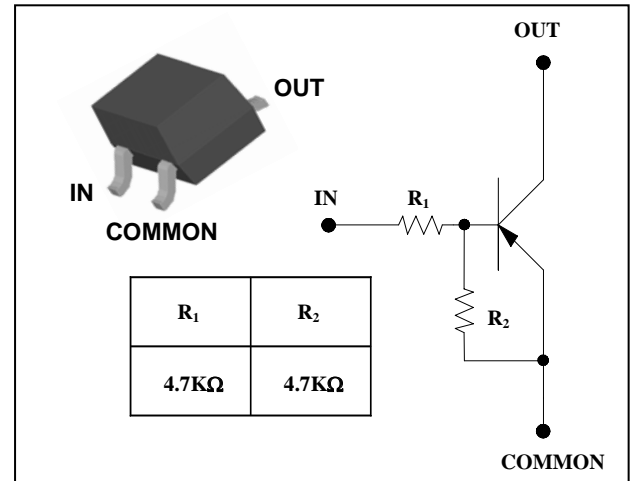
- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- High packing density

## Ordering Information

Type NO.	Marking	Package Code
SRA2201S	RA1  ① ②	SOT-23

①Device Code ②Year&amp;Week Code

## PIN Connection



## Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Output voltage	V <sub>O</sub>	-50	V
Input voltage	V <sub>I</sub>	-20, 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	30	55	-	-
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	-	-1.5	-2.0	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> <sup>*</sup>	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	-	-	-1.8	mA
Input resistor (Input to base)	R <sub>1</sub>	-	3.3	4.7	6.1	KΩ
Input resistor (Base to common)	R <sub>2</sub>	-	3.3	4.7	6.1	KΩ

\* : Characteristic of transistor only

Electrical Characteristic Curves

Fig. 1  $P_c - T_a$

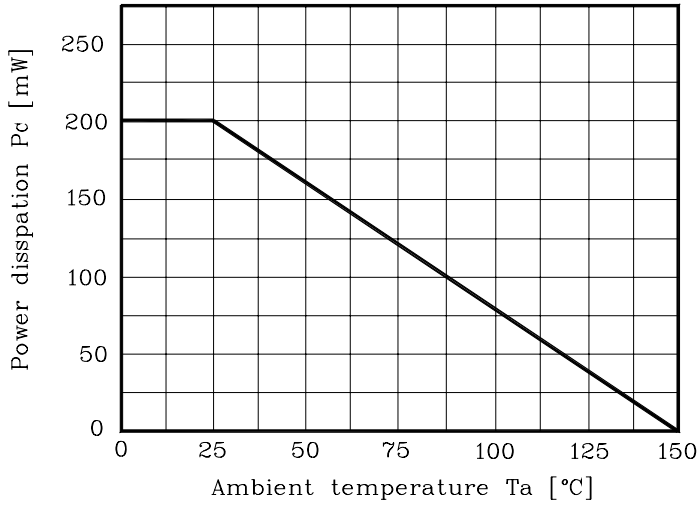


Fig. 2  $I_o - V_{I(ON)}$

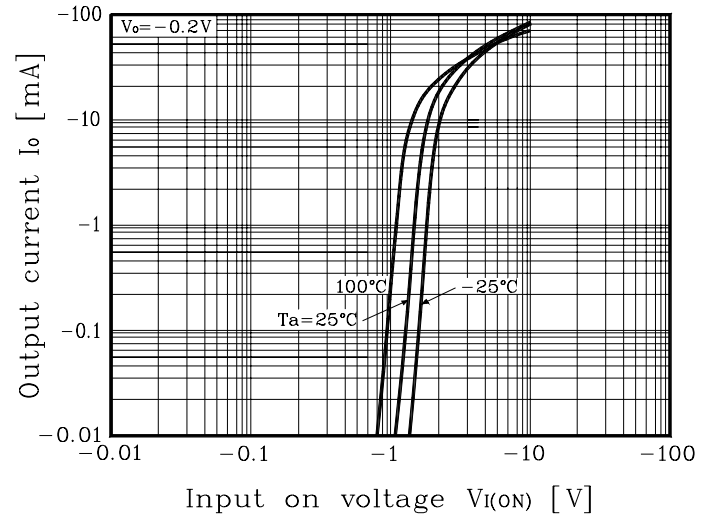


Fig. 3  $I_o - V_{I(OFF)}$

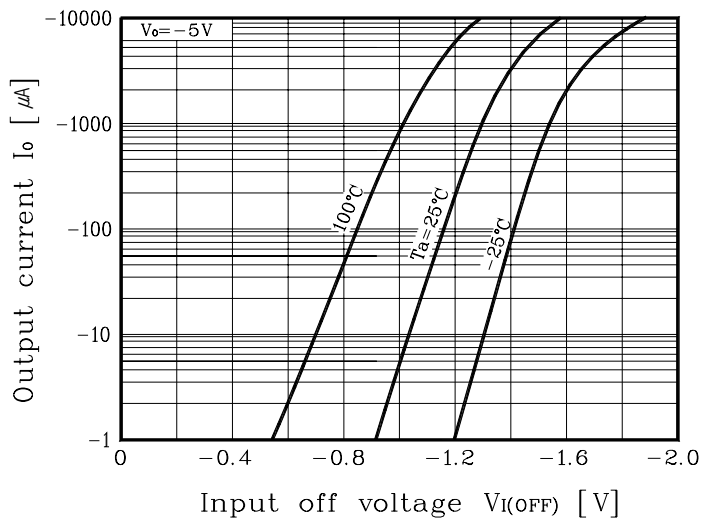
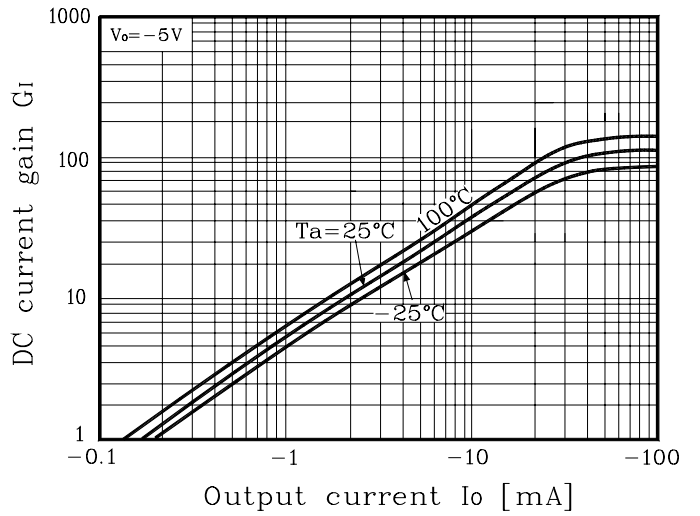
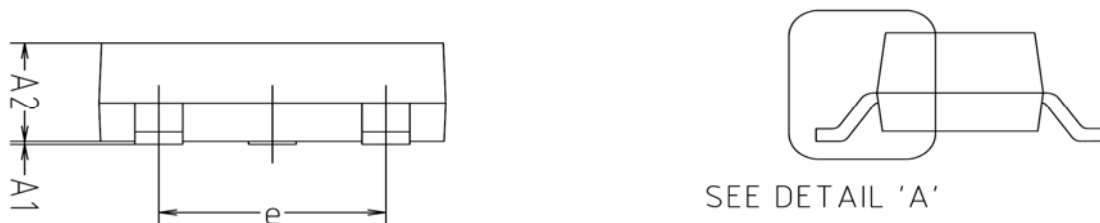
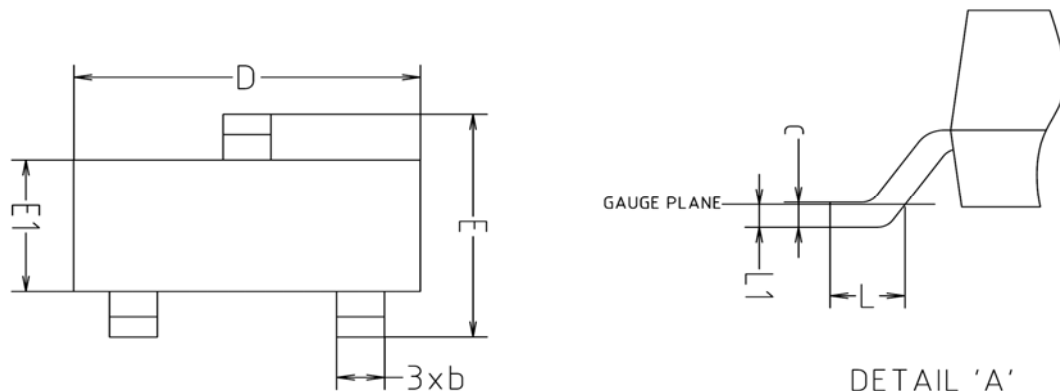


Fig. 4  $G_I - I_o$

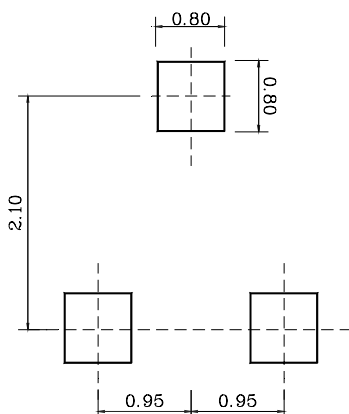


Outline Dimension



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]



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