

## Descriptions

- Switching application
- Interface circuit and driver circuit application

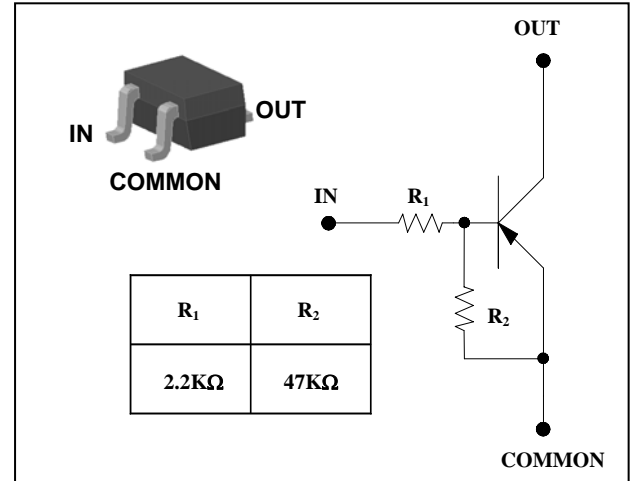
## Features

- 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
SRA2205E	$\frac{5R}{\text{① ②}}$ ① Device Code ② Year&Week Code	SOT-523

## 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>	-15, 5	V
Output current	I <sub>O</sub>	-100	mA
Power dissipation	P <sub>D</sub>	150	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	80	200	-	-
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	-	-	-1.1	V
Input voltage (OFF)	V <sub>I(OFF)</sub>	V <sub>O</sub> =-5V, I <sub>O</sub> =-0.1mA	-0.5	-	-	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	-	-	-3.6	mA
Input resistor (Input to base)	R <sub>1</sub>	-	1.54	2.2	2.86	KΩ
Input resistor (Base to common)	R <sub>2</sub>	-	33	47	61	KΩ

\* : Characteristic of transistor only

Electrical Characteristic Curves

Fig. 1  $P_D - T_a$

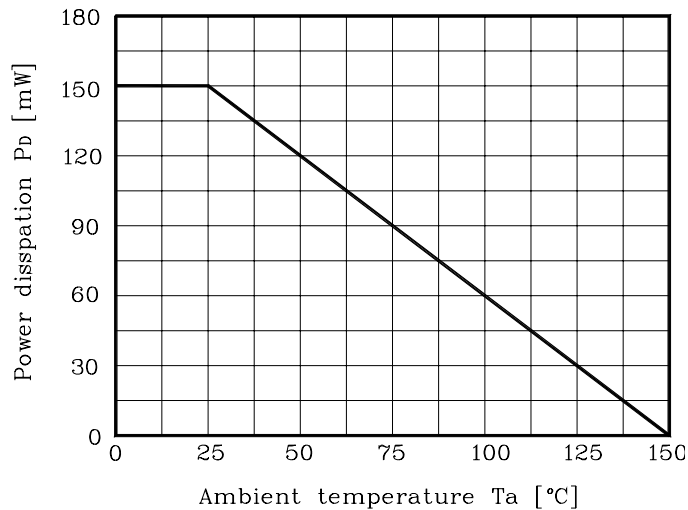


Fig. 2  $I_O - V_{I(ON)}$

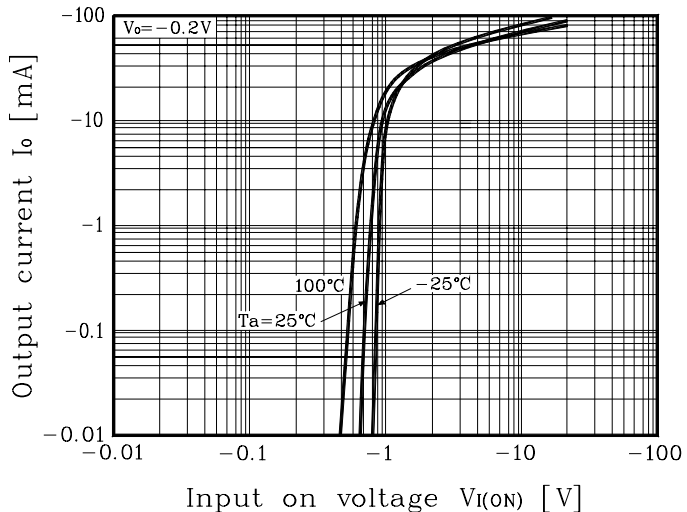


Fig. 3  $I_O - V_{I(OFF)}$

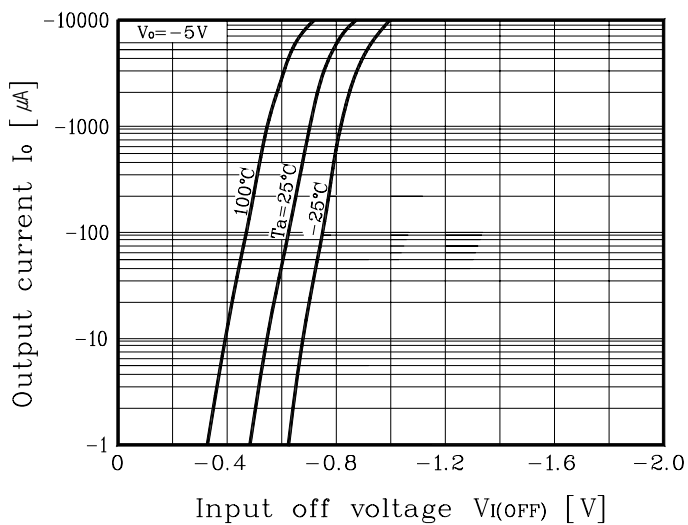
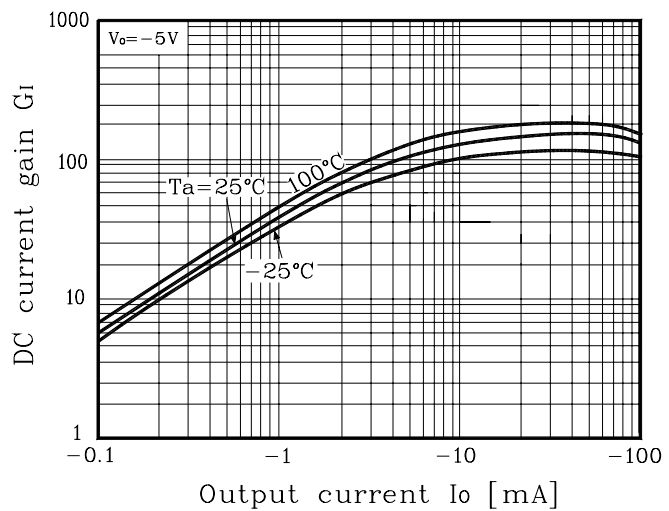
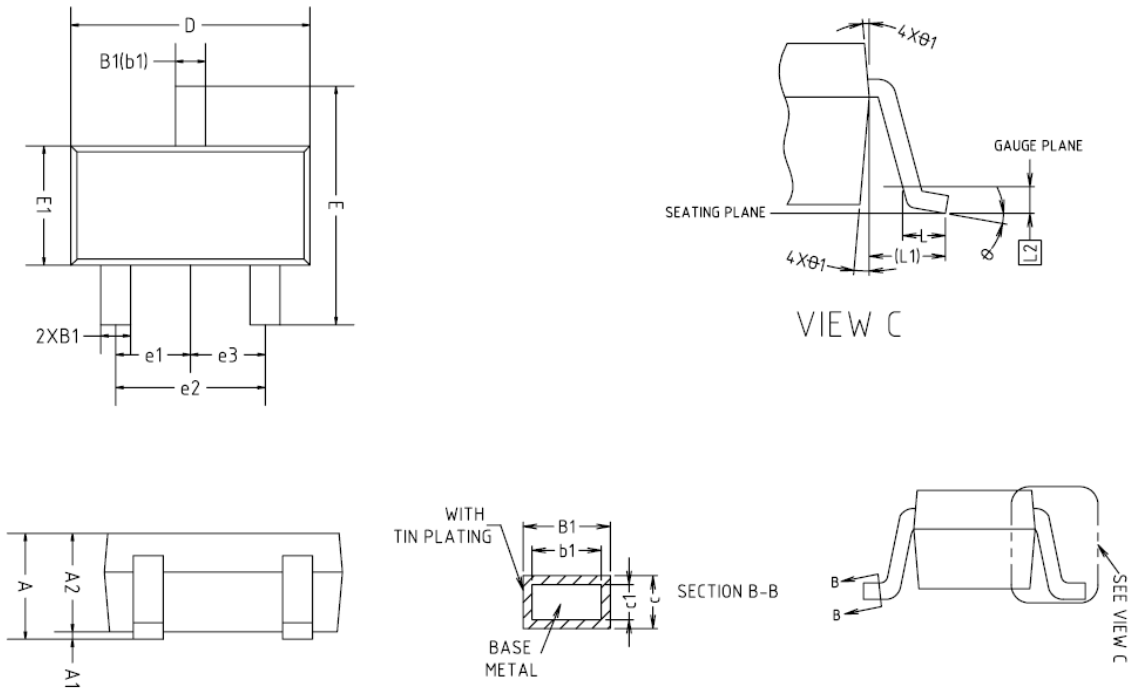


Fig. 4  $G_I - I_O$

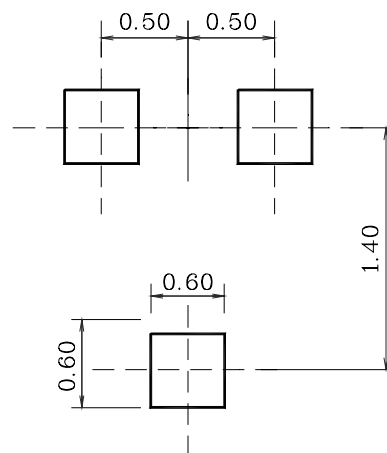


## Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	—	—	0.80	
A1	0.00	—	0.10	
A2	0.65	0.70	0.75	
B1	0.19	—	0.24	
b1	0.17	—	0.21	
c	0.13	—	0.15	
c1	0.10	—	0.12	
D	1.48	1.58	1.68	
E	1.50	1.60	1.70	
E1	0.66	0.76	0.86	
e1	0.50 BSC			
e2	1.00 BSC			
e3	0.50 BSC			
L	0.15	0.205	0.30	
L1	0.40 REF			
L2	0.15 BSC			
φ	0°	—	8°	
θ1	4°	—	10°	

※Recommend PCB solder land [Unit: mm]



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