

# **SRA2205**

**PNP Silicon Transistor** 

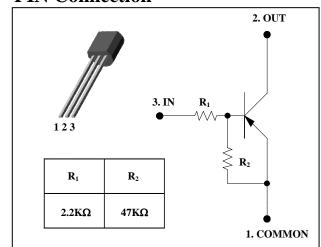
### **Descriptions**

- 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	
SRA2205	SRA2205	TO-92	_

## **Absolute Maximum Ratings**

 $(Ta=25^{\circ}C)$ 

Characteristic	Symbol	Rating	Unit
Output voltage	Vo	-50	V
Input voltage	$V_{I}$	-15, 5	V
Output current	Io	-100	mA
Power dissipation	$P_{D}$	625	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.	Тур.	Max.	Unit
Output cut-off current	I <sub>O(OFF)</sub>	$V_0 = -50V, V_1 = 0$	-	-	-500	nA
DC current gain	G <sub>I</sub>	$V_0 = -5V$ , $I_0 = -10$ mA	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>	$V_0 = -0.2V$ , $I_0 = -5mA$	-	-	-1.1	V
Input voltage (OFF)	V <sub>I(OFF)</sub>	$V_0 = -5V$ , $I_0 = -0.1$ mA	-0.5	-	-	V
Transition frequency	$f_T^*$	$V_0 = -10V$ , $I_0 = -5mA$ , $f = 1MHz$	-	200	-	MHz
Input current	I <sub>1</sub>	$V_1 = -5V, I_0 = 0$	-	-	-3.6	mA
Input resistor (Input to base)	R <sub>1</sub>	-	1.54	2.2	2.86	KΩ
Input resistor (Base to common)	$R_2$	-	33	47	61	KΩ

<sup>\*:</sup> Characteristic of transistor only

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### **Electrical Characteristic Curves**

Fig. 1 P<sub>D</sub> - Ta

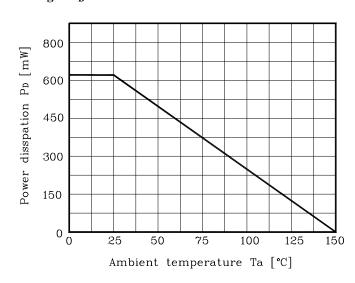


Fig. 2  $I_{O}$  -  $V_{I\left(ON\right)}$ 

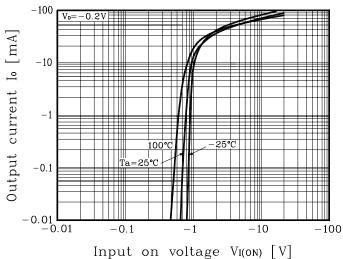


Fig. 3  $I_{\rm O}$  -  $V_{\rm I(OFF)}$ 

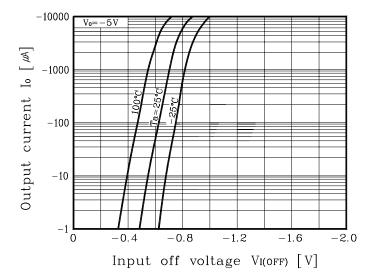
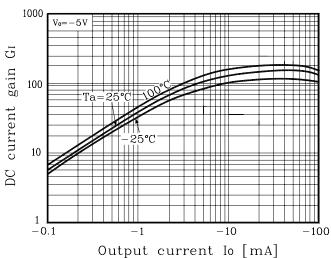
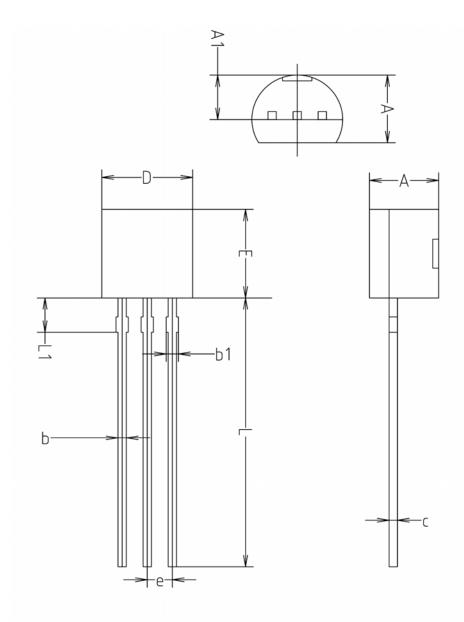


Fig. 4 G<sub>I</sub> - I<sub>O</sub>



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## **Outline Dimension**



	MILLMETERS(mm)				
SYMBOL	MINIMUM	NOMINAL	MAXIMUM		
Α	3.40	3.50	3.66		
A1	2.46	2.51	2.59		
b	0.39	0.44	0.53		
b1	0.39	_	0.63		
С	0.35	0.42	0.47		
D	4.48	4.60	4.70		
Ε	4.48	4.60	4.70		
е	1.17	1.27	1.37		
L	13.70	14.00	14.77		
L1	1.55	1.70	2.15		

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