

# **SRA2212U**

**PNP Silicon Transistor** 

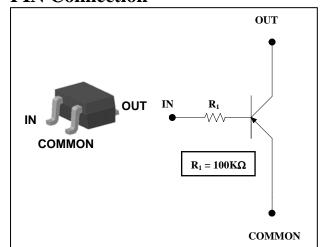
## **Descriptions**

- Switching application
- Interface circuit and driver circuit application

#### **Features**

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

#### **PIN Connection**



## **Ordering Information**

Type NO.	Marking	Package Code
SRA2212U	<u>BR</u> □ ① ②	SOT-323

①Device Code ②Year&Week Code

## **Absolute Maximum Ratings**

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Output voltage	Vo	-50	V
Input voltage	V <sub>I</sub>	-40, 5	V
Output current	Io	-100	mA
Power dissipation	$P_{D}$	200	mW
Junction temperature	TJ	150	°C
Storage temperature range	T <sub>stg</sub>	-55 ~ 150	°C

#### **Electrical Characteristics**

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

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	Gı	$V_O = -5V$ , $I_O = -10$ mA	120	-	-	-
Output voltage	$V_{O(ON)}$	I <sub>O</sub> =-10mA, I <sub>I</sub> =-0.5mA	-	-0.1	-0.3	V
Input voltage (ON)	V <sub>I(ON)</sub>	$V_0 = -0.2V$ , $I_0 = -5mA$	-	-	-4.4	V
Input voltage (OFF)	$V_{I(OFF)}$	$V_0 = -5V$ , $I_0 = -0.1$ mA	-0.3	-	-	V
Transition frequency	$f_{T}^{}^{\star}}$	$V_O = -10V$ , $I_O = -5$ mA, $f = 1$ MHz	-	200	-	MHz
Input current	$I_1$	$V_1 = -5V$ , $I_0 = 0$	-	-	-0.1	mA
Input resistor (Input to base)	R <sub>1</sub>	-	70	100	130	ΚΩ

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

KSD-R5D041-000

## **Electrical Characteristic Curves**

Fig. 1 Pc - Ta

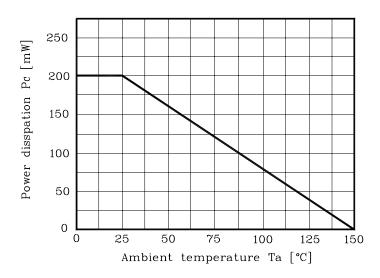


Fig. 2  $I_{\rm O}$  -  $V_{\rm I(ON)}$ 

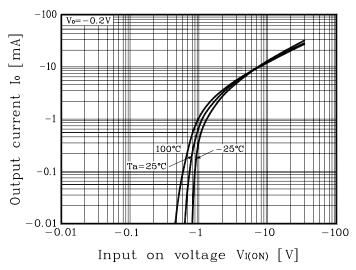


Fig. 3  $I_O$  -  $V_{I(OFF)}$ 

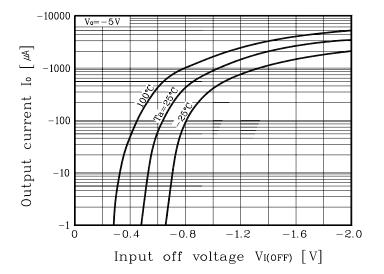
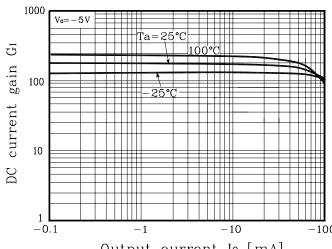
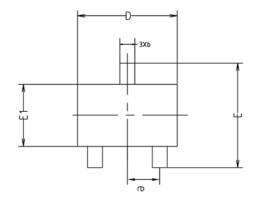


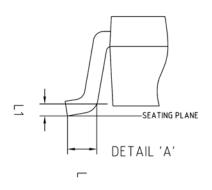
Fig. 4 G<sub>I</sub> - I<sub>O</sub>

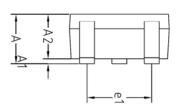


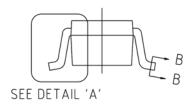
Output current Io [mA]

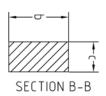
## **Outline Dimension**





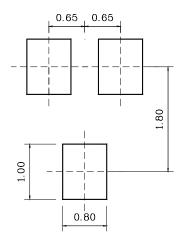






SYMBOL	1	NOTE		
STRIBOL	MINIMUM	NOMINAL	MAXIMUM	NUTE
Α	0.90	-	1.25	
A1	0.00	-	0.10	
A2	0.85	0.90	0.95	
Ь	0.30	-	0.40	
С	0.10	-	0.25	
D	1.90	2.00	2.10	
Ε	1.95	2.10	2.25	
E1	1.15	1.25	1.35	
е	0.65BSC			
e1	1.20	-	1.40	
L	0.10	-	-	
I 1		0.12BS	۲	

#### \*Recommend PCB solder land [Unit: mm]



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