

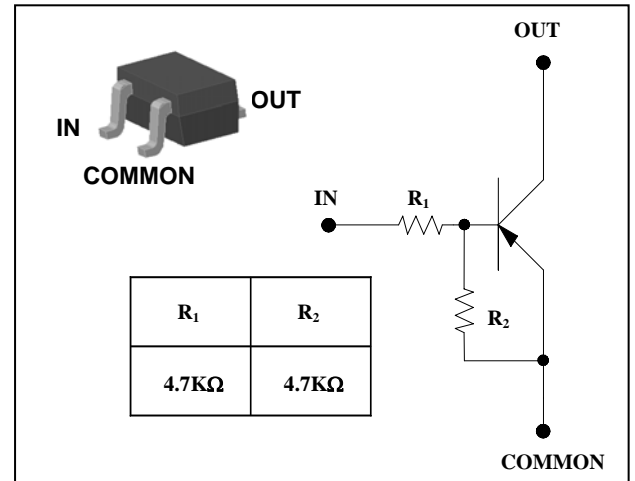
Descriptions

- 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
SRA2201U	$\frac{1R}{\text{① ②}}$	SOT-323

① Device Code ② Year&Week Code

Absolute Maximum Ratings

($T_a=25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Output voltage	V_o	-50	V
Input voltage	V_i	-20, 10	V
Output current	I_o	-100	mA
Power dissipation	P_D	200	mW
Junction temperature	T_J	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 ~ 150	$^\circ\text{C}$

Electrical Characteristics

($T_a=25^\circ\text{C}$)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output cut-off current	$I_{O(OFF)}$	$V_o=-50\text{V}, V_i=0$	-	-	-500	nA
DC current gain	G_i	$V_o=-5\text{V}, I_o=-10\text{mA}$	30	55	-	-
Output voltage	$V_{O(ON)}$	$I_o=-10\text{mA}, I_i=-0.5\text{mA}$	-	-0.1	-0.3	V
Input voltage (ON)	$V_{I(ON)}$	$V_o=-0.2\text{V}, I_o=-5\text{mA}$	-	-1.5	-2.0	V
Input voltage (OFF)	$V_{I(OFF)}$	$V_o=-5\text{V}, I_o=-0.1\text{mA}$	-1.0	-1.2	-	V
Transition frequency	f_T^*	$V_o=-10\text{V}, I_o=-5\text{mA}, f=1\text{MHz}$	-	200	-	MHz
Input current	I_i	$V_i=-5\text{V}, I_o=0$	-	-	-1.8	mA
Input resistor (Input to base)	R_1	-	3.3	4.7	6.1	K Ω
Input resistor (Base to common)	R_2	-	3.3	4.7	6.1	K Ω

* : Characteristic of transistor only

Electrical Characteristic Curves

Fig. 1 $P_c - T_a$

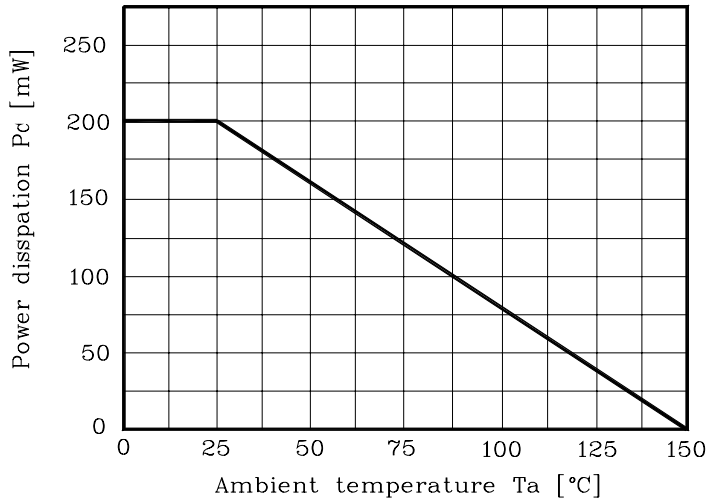


Fig. 2 $I_o - V_{I(ON)}$

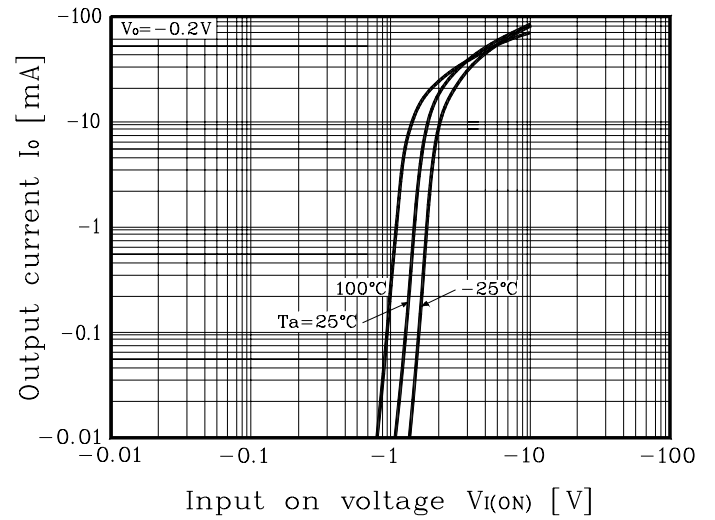


Fig. 3 $I_o - V_{I(OFF)}$

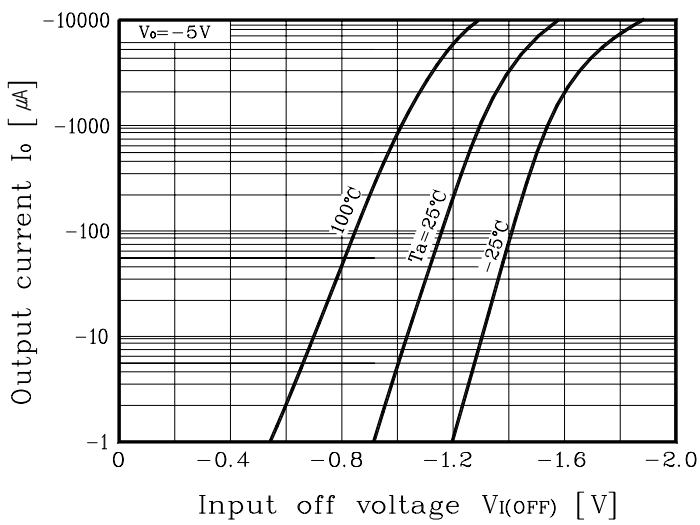
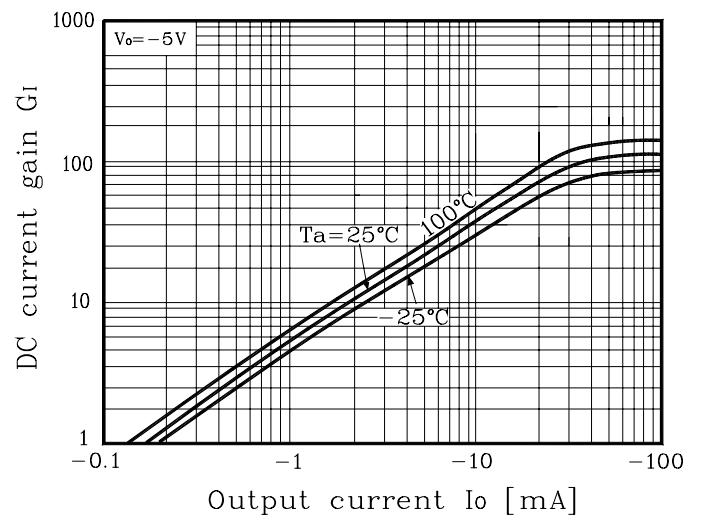
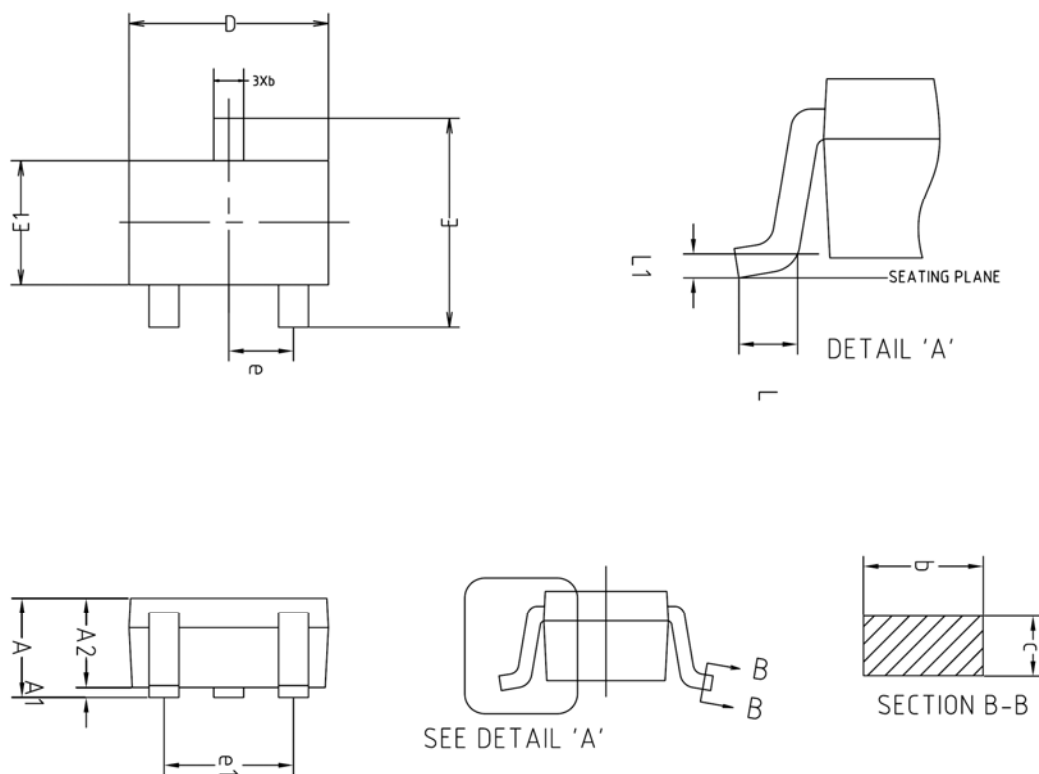


Fig. 4 $G_I - I_o$

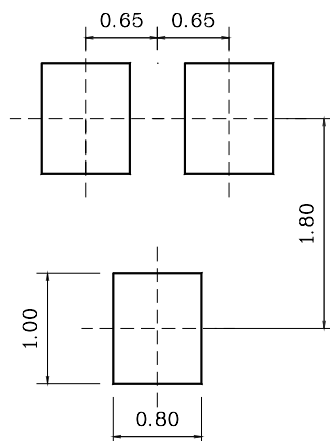


Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.90	-	1.25	
A1	0.00	-	0.10	
A2	0.85	0.90	0.95	
b	0.30	-	0.40	
c	0.10	-	0.25	
D	1.90	2.00	2.10	
E	1.95	2.10	2.25	
E1	1.15	1.25	1.35	
e	0.65BSC			
e1	1.20	-	1.40	
L	0.10	-	-	
L1	0.12BSC			

※Recommend PCB solder land [Unit: mm]



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