

### 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
SRA2201SF	RA1	SOT-23F

### Outline Dimensions

unit : mm

• **Equivalent Circuit**

**PIN Connections**

1. Base
2. Emitter
3. Collector

R <sub>1</sub>	R <sub>2</sub>
4.7KΩ	4.7KΩ

## Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Out Voltage	$V_o$	-50	V
Input Voltage	$V_i$	-20	V
Out Current	$I_o$	-100	mA
Power Dissipation	$P_D$	200	mW
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{STG}$	-55 ~ 150	°C

## Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Cut-off Current	$I_{O(OFF)}$	$V_o = -50V, V_i = 0$	-	-	-500	nA
DC Current Gain	$G_i$	$V_o = -5V, I_o = -10mA$	30	55	-	-
Output Voltage	$V_{O(ON)}$	$I_o = -10mA, I_i = -0.5mA$	-	-0.1	-0.3	V
Input Voltage (ON)	$V_{I(ON)}$	$V_o = -0.2V, I_o = -5mA$	-	-1.5	-2.0	V
Input Voltage (OFF)	$V_{I(OFF)}$	$V_o = -5V, I_o = -0.1mA$	-1.0	-1.2	-	V
Transition Frequency	$f_T^*$	$V_o = -10V, I_o = -5mA$	-	200	-	MHz
Input Current	$I_i$	$V_i = -5V$	-	-	-1.8	mA

\* : Characteristic of Transistor Only

Electrical Characteristic Curves

Fig. 1  $I_o - V_{I(ON)}$

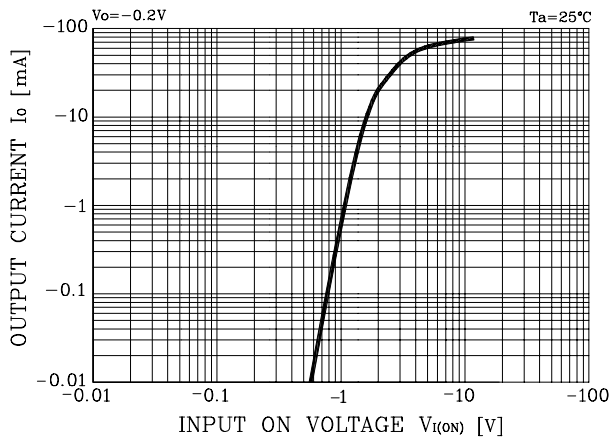


Fig. 2  $I_o - V_{I(OFF)}$

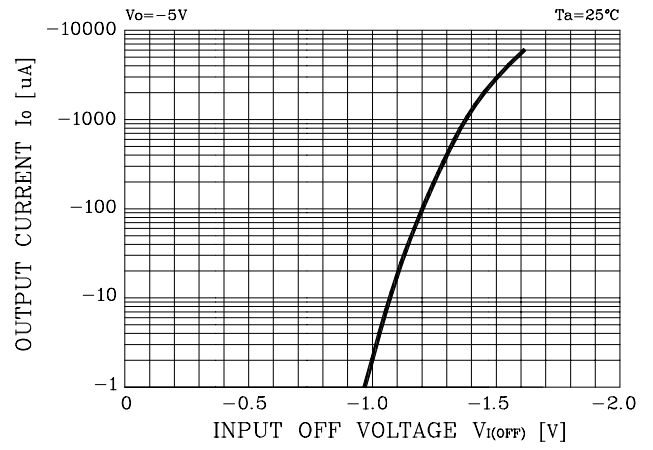


Fig. 3  $G_I - I_o$

