

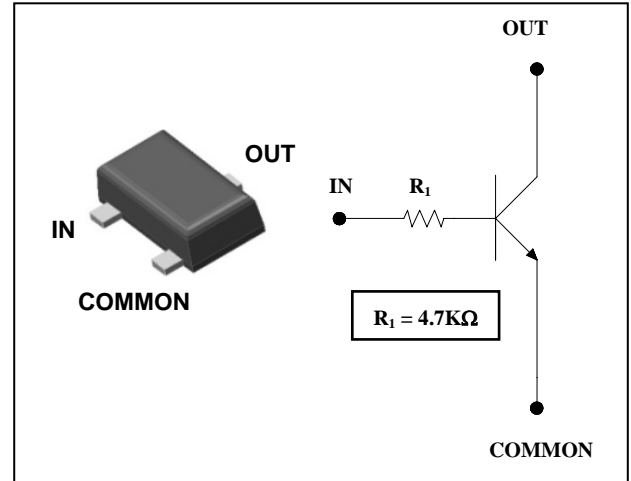
## Descriptions

- 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
SRC1210SF	RCA □ ① ②	SOT-23F

① Device Code ② Year & Week Code

## Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Output voltage	$V_O$	50	V
Input voltage	$V_I$	20, -5	V
Output current	$I_O$	100	mA
Power dissipation	$P_D$	200	mW
Junction temperature	$T_J$	150	°C
Storage temperature range	$T_{stg}$	-55 ~ 150	°C

## Electrical Characteristics

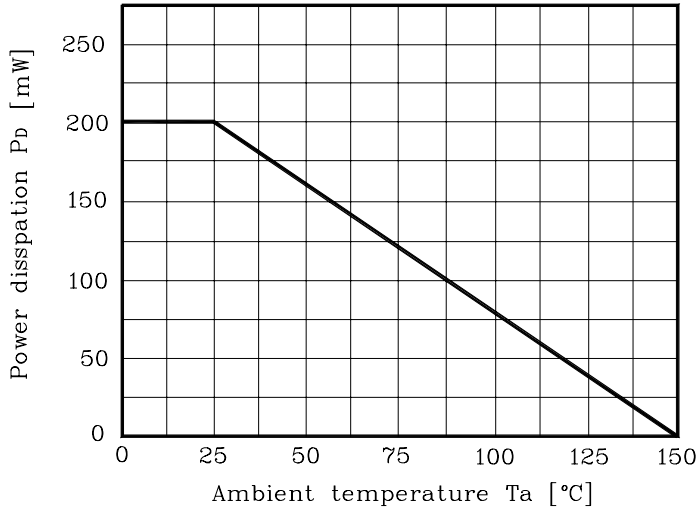
(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output cut-off current	$I_{O(OFF)}$	$V_O = 50V, V_I = 0$	-	-	500	nA
DC current gain	$G_I$	$V_O = 5V, I_O = 10mA$	120	-	-	-
Output voltage	$V_{O(ON)}$	$I_O = 10mA, I_I = 0.5mA$	-	0.1	0.3	V
Input voltage (ON)	$V_{I(ON)}$	$V_O = 0.2V, I_O = 5mA$	-	0.8	1.2	V
Input voltage (OFF)	$V_{I(OFF)}$	$V_O = 5V, I_O = 0.1mA$	0.3	0.55	-	V
Transition frequency	$f_T^*$	$V_O = 10V, I_O = 5mA, f = 1MHz$	-	200	-	MHz
Input current	$I_I$	$V_I = 5V, I_O = 0$	-	-	1.8	mA
Input resistor (Input to base)	$R_1$	-	3.3	4.7	6.1	K $\Omega$

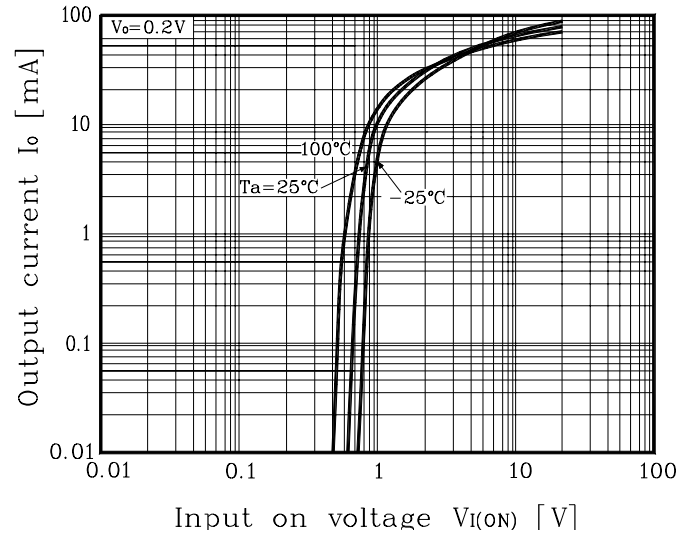
\* : Characteristic of transistor only

## Electrical Characteristic Curves

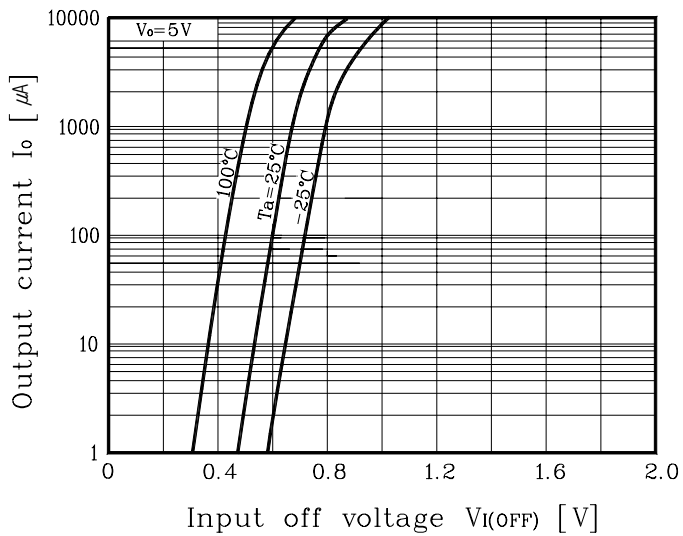
**Fig. 1  $P_D - T_a$**



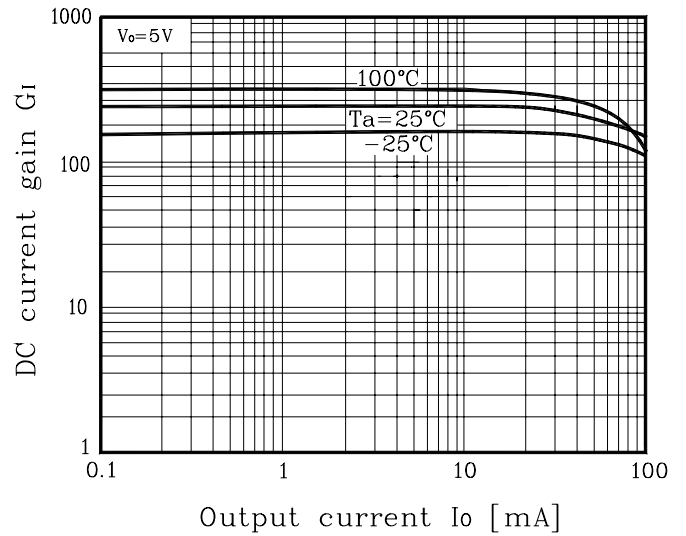
**Fig. 2  $I_O - V_{I(ON)}$**



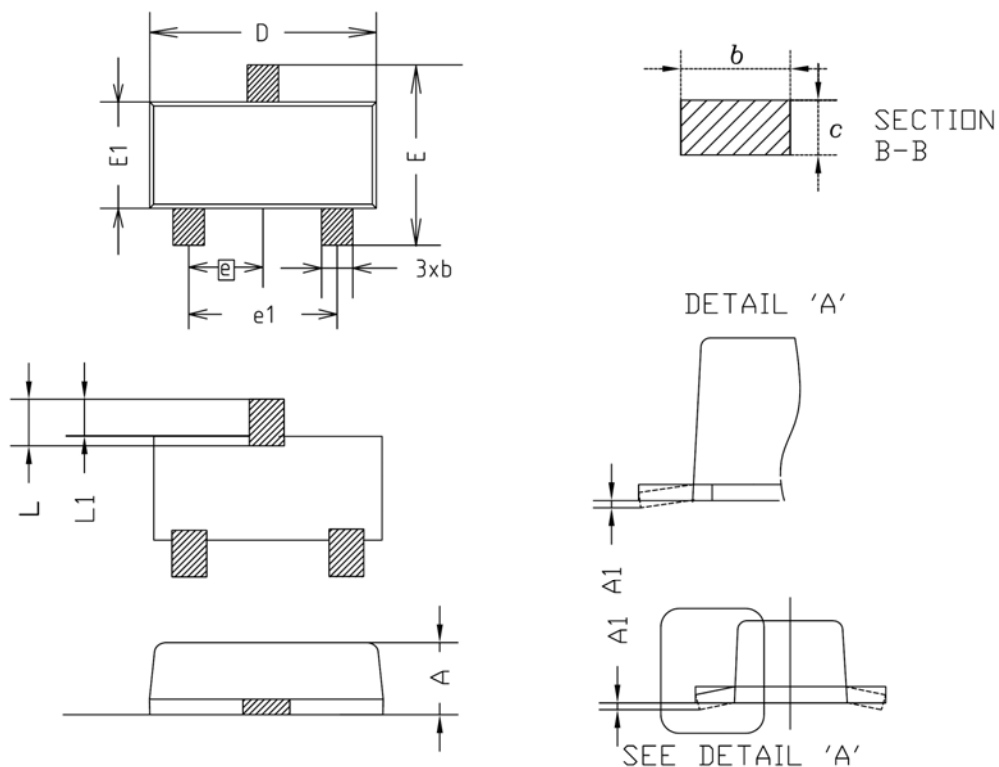
**Fig. 3  $I_O - V_{I(OFF)}$**



**Fig. 4  $G_I - I_O$**

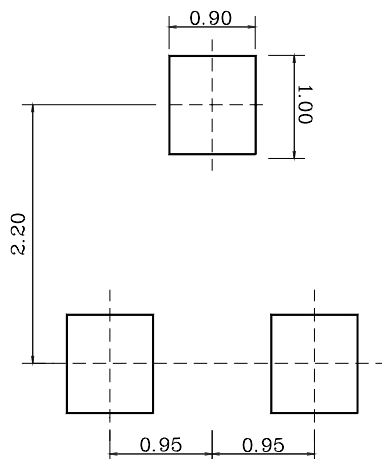


## Outline Dimension



SYMBOL	MILLIMETER(mm)			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.80	0.90	1.00	
A1	0.00	-	0.10	
b	0.35	0.40	0.45	
c	0.10	0.15	0.20	
D	2.80	2.90	3.00	
E	2.30	2.40	2.50	
E1	1.50	1.60	1.70	
e	0.95BSC			
e1	1.80	1.90	2.00	
L	0.48	0.58	0.68	
L1	0.30	-	0.50	

※Recommend PCB solder land [Unit: mm]



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